XVIII. A catalogue of the Pyralidina of Sikkim collected by Henry J. Elwes and the late Otto Möller. By Pieter C. T. Snellen, Hon. F.E.S., with notes by H. J. Elwes, F.L.S.

[Read April 2nd, 1890.]

PLATES XIX. & XX.

PYRALIDINA, Lederer. (Wien. Ent. Monatschr., vii., p. 243, &c.).

D. PYRALIDIDÆ, Led.

Genus Paravetta, Moore, P. Z. S., 1865, p. 814.

1. Paravetta discinota.

Paravetta discinota, Moore, P.Z.S., 1865, p. 814, pl. xliii., f. 3, \$\chi\$; S. & C., No. 1158.

In the genus *Paravetta*, which belongs to the *Pyralidina*, vein 8 of hind wings is free, the ocelli are wanting, the maxillary palpi short but distinct, filiform, the tongue spiral, the labial palpi short, porrect, pilose. For other characters see Moore, *l. c.*

Sikkim; Möller.

[Darjeeling; Elwes. Taken at light from June to September. The plate, which represents a female, is not a correct one, the colours being less distinct than they are represented. A nearly allied and perhaps identical species is found on the Naga Hills.—H. J. E.]

2. Paravetta Sikkima.

Paravetta Sikkima, Moore, Deser. Indian Lep. Atk., p. 70 &; S. & C., No. 1159.

This species does not so much differ from *Discinota* by the smaller size as by the different markings and the much more angular hind margin of the fore wings.

[This latter point is not constant in my specimens, but the much darker colour will easily distinguish it. The female is also in my collection, and is like the male,

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but with longer wings, and the antennæ filiform with minute setæ.—H. J. E.]

Sikkim; Möller. October, Mongpo, 4000 ft.; Gammie.

3. Paravetta flexuosa, nov. sp.

One female of 36 mm. expanse.

Differs from discinota and Sikkima by the colour and form of the lines on the fore wings; they are black, not pale; the first is twice bent, in the discoidal cell and from its inner margin to that of the wing, the second nearly straight, flexuous in the middle, running from two-thirds of the costa to three-fourths of the inner margin. Besides, the fore wings are broader. General colour pale pinkish brown, palpi and thorax darker; basal third of fore wings dusted with blackish brown; transverse lines and a slender oblique linear discal mark blackish grey, distinct. Behind the second the ground is darker, first ochreous brown, then along hind margin purplish grey, both colours separated by an ill-defined blackish line, the upper half of which is flexuous and wavy, the inferior straight, running close to the second transverse line. Fringes dark brown. Hind wings paler, somewhat cupreous and shining. Discal line (at two-thirds of the wing as in the other species) dark, but very indistinct. Fringes purplish grey. Under side pale pinkish brown; a common discal line and the hind margins of all wings darker, those of the fore wings before the fringes purplish grey. Legs brown with pale tarsi, the posterior pair with dark brown tufts on the tibiæ and the first article of the tarsi.

Sikkim interior; Möller. Mongpo, 4000 ft.; Gammie.

Mr. Elwes since has received two males, of which he sent me one for examination. I observe a brush of long hairs at the base of the wings below, which is also present in the male of *Xestula miraculosa*, Snellen (see 'Mémoires sur les Lépidoptèra,' ii., p. 195). This character frequently occurs in the *Pyralidæ*.

[Genus Danaka, *Moore*, Descr. Atk., p. 71, t. 3, f. 10, & (1879).

4. Danaka pyraliformis, Moore, l. c.

Two specimens in bad condition, which agree with the plate of this species. Mr. Snellen refrains from any observations on their generic characters, which do not

seem to differ appreciably from those of Paravetta.—H. J. E.]

Genus Sybrida, Walk., Cat., 32, p. 465.

5. Sybrida inordinata.

Sybrida inordinata, Walk., Cat., 32, p. 465, \$\delta\$; Butl., Ill. Het., vi., p. 28, t. 107, 8, \$\delta\$; S. & C., No. 1114.

The genus *Sybrida* is closely allied to *Paravetta*, only the hind margin of fore wings is more regularly rounded, and the antennæ of the male more broadly pectinated.

Sikkim; Möller.

[As the female of this species is undescribed, I may say that it is considerably larger than the male, and much pinker in colour on both wings and both surfaces. The antennæ are very faintly serrate, as in *Paravetta*, but the legs are similar to those of the male, and very peculiar in their structure, as decribed by Walker, who suggests the affinity to the *Pyralidæ*. Butler says the natural position of the genus can only be decided by breeding. He also says that the inner line on the fore wings was overlooked by Walker, but in his figure he makes this look both too distinct and too close to the outer line, as five males in my collection all agree in this point. The shape of the wings, as well as the colour, in his plate is also incorrect.

The species is not uncommon at low elevations in

Sikkim, but I have not taken it myself.—H. J. E.]

Genus Toccolosida, Walk., Cat., 27, p. 14.

6. Toccolosida rubriceps.

Toccolosida rubriceps, Walker, Cat., 27, p. 14, 3; S. & C., No. 4730.

Toccolosida is a genus of Pyralidina allied to Paravetta, not to the Crambidæ or Phycididæ; the form of the wings and the palpi are nearly the same as in Paravetta, but the antennæ are much longer, as long as two-thirds of the costa of fore wings, pubescent in the male. Neuration as in Paravetta.

[The hind margin of the fore wings below is not cinereous, as described by Walker, but vitreous greenish

grey. It seems very rare in Sikkim, and occurs also in Silhet and the Naga Hills.—H. J. E.]

Sikkim; Möller.

7. Toccolosida? pallifrons, nov. spec.

One female of 31 mm. expanse.

It is only provisionally that this species is described here as a Toccolosida, as the male is still unknown to me. I do not perceive maxillary palpi, which are short and filiform, but distinct in T. rubriceps; however, as the head of the only female is damaged, these organs may exist in perfect specimens. Head and thorax luteous, mixed with rufous brown. Fore wings dark fuscous at the base and rufous brown between the discoidal cell, vein 5 and the inner margin; the costal half of the wing pale greyish luteous, with a black discal dot. Rufous part of the wing marked with two oblique pale transverse lines, the second somewhat flexuous, whiter and remounting close to hind margin till the apex. Fringes dark grey, variegated with whitish. Form of fore wings nearly as in T. rubriceps. Hind wings with a very distinct obtuse angle in cell 3, thus of a different shape as in rubriceps. The outer third is rufous brown, the basal part blackish brown, with two flexuous white lines and a vitreous spot between them.

Sikkim, April 20th, 1888; Möller.

Genus Vitessa, *Moore*, Cat. E. I. C. Mus., ii., p. 299; Led., p. 334.

8. Vitessa Suradeva.

Vitessa Suradeva, Moore, Cat. Lep. East India Comp., ii., p. 299, pl. 7 a, f. 7; Lederer, Wien. Ent. Mon., vii., p. 334, pl. 6, f. 6; S. & C., No. 4516.

In the description of the genus Suradeva, Moore, Lederer says:—"Der Hinterleib.... beim Manne.... gegen hinten zu sehr erweitert, mit klumpenförmiger, am Ende borstig behaarter Afterspitze die eigenthümlich gebildete Afterklappen vermuthen lässt." A male of this species, from the Naga Hills, shows that this clublike end of the abdomen hides a considerable tuft of long hairs; it is exserted in the said specimen, which bears also a MS. note, intimating that in the living insect the anal tuft smells strongly of bitter almonds.

Sikkim; Möller.

Genus Tyspana, Moore, Lep. Ceyl., iii., p. 256. 9. Tuspana vitessoïdes.

Tyspana vitessoïdes, Moore, Lep. of Ceylon, p. 256, pl. 178, f. 3, 3a; S. & C., No. 4517.

Sikkim, one male; Brit. Mus.

Genus Cledeobia, Steph., Cat., 1829; Led., p. 336.

10. Cledeobia angulifascia. (Pl. XIX., fig. 4).

Pyralis angulifascia, Moore, Descr. Atk., p. 206 (1887).

A pair of 21—22 mm. expanse.

Belongs to Lederer's Section B of the genus, and comes next to brunnealis, Treits., but is distinct by the long tegulæ of the male, reaching almost to the half of the abdomen, the somewhat larger size, the much more flexuous second line of the fore wings, and the darker colour of their basal and marginal thirds. Head with palpi and thorax pale greyish luteous. Basal and marginal third of fore wings dull black, central area pale cold greyish luteous, a little dusted with black, and with a round black discal dot, the costal margin narrowly black, with distinct minute pale dots. The width of the central area is at the costa the double of that on the inner margin, being limited by the strongly flexuous paler second line. The first line, which limits the basal area, is nearly perpendicular, a little flexuous in the middle. Marginal line pale, with indistinct black dots. Fringes dark grey. Hind wings grey, the fringes with a dark basal line. Abdomen grey; anal tuft of male ochreous.

Sikkim, Elwes; Sikkim interior; Möller.

Genus Propachys, Walk., Cat., 27, p. 5.

11. Propachys nigrivena.

Propachys nigrivena. Walker, Cat. 27, p. 6; S. & C., No. 4728.

Vein 8 of hind wings is free, the ocelli are present, and the remarkable labial palpi almost formed as in the genus *Nosophora* (see Lederer, Wien. Ent. Mon., vii., pl. 4, f. 26).

Sikkim; H. J. Elwes.

[Seems common at low elevations, but I have not taken it myself. Occurs also in the Khasia Hills and China.—H. J. E.]

12. Propachys linealis.

Propachys linealis, Moore, P. Z. S., 1867, p. 665, pl. 33, f. 17; S. & C., No. 4727.

Darjeeling, Dharmsala; Brit. Mus.

[Seems rare in Sikkim.—H. J. E.]

Genus Oryba, Walk., Cat., 27, p. 10.

13. Oryba conspicualis, nov. spec. (Pl. XX., fig. 3).

A pair of 28-29 mm. expanse.

Palpi fully twice as long as the head, porrected, their base narrowly white, the remainder deep rosy. Head and thorax reddish grey, also the basal article of the setaceous rufous brown antennæ, which in the male sex is larger and curved. Fore wings partly pale vermilion-red and clear purplish grey, marked with two distinct simple, nearly black, transverse lines; a somewhat reniform pale yellow-red bordered spot below the middle of the costa, and another vitreous white, which occupies the base of the cells 3 and 4, interrupting the second line. Hind wings whitish, tinged with red at the base, on the inner third, and along the anterior margin above vein 6, grey at the apex. The central area, from the discoidal cell till hind margin, is pale vermilion-red, divided by a recurved distinct black discal line. Fringes dark grey from the apex of fore wings till vein 3 of hind wings, from thence to the anal angle whitish. Under side of fere wings mostly dark grey, that of hind wings white, red tinged with dark grey, apex and discal line as above. Abdomen with a red spot at the base and paler apex. Breast white, also the inner side of the anterior femora; the remainder of legs deep rosy, with whitish tarsi.

In this species vein 8 of hind wings is free, the ocelli and maxillary palpi are wanting, veins 4 and 5 everywhere unstalked, from a point.

Sikkim; Möller. Darjeeling, July; H. J. Elwes.

[This species is found at about 7—8000 ft. elevation, but seems rare. This is allied to and may possibly be the same as *Oryba plangonalis*, Walk., of which a specimen from Sikkim is in the British Museum.—H. J. E.]

[14. Euclita sericea, Warren MSS.

In British Museum from Darjeeling, ex coll. Lidderdale. —H. J. E.]

Genus Stericta, Led., p. 340.

15. Stericta basalis.

Pannucha basalis, Moore, Desc. Indian Lep., p. 200, pl. vii., f. 2, &; S. & C., No. 4479.

Vein 8 of hind wings is free. I thus should rather place this species in Stericta than in Pannucha.

Darjeeling, July; H. J. Elwes.

16. Stericta lativitta.

Locastra lativitta, Moore, Desc. Indian Lep., p. 199, pl. vii., f. 1; S. & C., No. 4476.

A female. Sikkim; Möller.

17. Stericta crassipennis.

Locastra crassipennis, Walker.

A pair.

Sikkim; Möller (?). Naga Hills, 5000-8000 ft., July, W. Doherty (3).

18. Stericta cuproviridalis.

Locastra cuproviridalis, Moore, P. Z. S., 1867, p. 87; S. & C., 4475.

This species must be placed here, being a true Pyralid, and agreeing with *Stericta* in generic characters; the only difference is that the veins 4 and 5 in both wings are not separate but stalked. Palpi as in *divitalis* and monesusalis.

Darjeeling, July 20th and August 4th, 1886; H. J. Elwes.

[Common at Darjeeling at light, and found down to 3 or 4000 ft.—H. J. E.]

19. Stericta sikkima.

Taurica sikkima, Moore, Descr. Atk., p. 202 (1887).

A male of 38 mm. expanse.

Third article of palpi shorter and more obtuse than in the foregoing species. Apex of fore wings more distinct than in all the other species of the genus, the anal tuft of the abdomen very obtuse. Veins 4 and 5 unstalked. Head and collar bright cinnamon, third article of

palpi dark brown, the remainder, the antennæ, and thorax, pale brown. Basal fourth of fore wings blackish brown, followed by a pale olive-green posteriorly ill-defined fascia, which is widening towards the costa, and traversed near to and parallel with the dark base by a distinct undulated black line. Of the second half of the wing, the basal two-thirds are deep brown, mixed with ferruginous and olive-green, marked by an indistinct denticulated blackish second line; the marginal third and the fringes being olive-green, with an interrupted distinct black marginal line; fringes spotted with grey. Hind wings dark grey, with a trace of a greenish discal line on the outer third between veins 2 and 5. Marginal line blackish grey, not quite continuous. Fringes as in fore wings. Under side pale olive-green, the basal two-thirds of fore wings and a common discal line dark grey. Abdomen dark grey, with a reddish tuft at the dorsal base. Anal tuft blackish brown. Legs pale olive-green, spotted with grey, the anterior coxe and the pecten rufous.

Darjeeling, July; H. J. Elwes. Naga Hills; Doherty.

Genus Scopocera, Moore, Desc. Ind. Lep., p. 202.

20. Scopocera Pyraliata.

Scopoccra Pyraliata, Moore, Descr. Ind. Lep., p. 202; S. & C., No. 4484.

A female. Vein 8 of hind wings is free, the labial palpi are very long, recurved, and pointed.

Sikkim; Möller.

21. Scopocera minor.

Scopocera minor, Moore, Descr. Indian Lep., Atk., p. 203.

A male.

Sikkim, 7000 ft.; Möller.

Genus Orthaga, Walk., Cat., 16, p. 191.

22. Orthaga euadrusalis.

Orthaga euadrusalis, Walk., Cat., 16, pp. 191, 248; Moore, Lep. of Ceylon, p. 259, pl. 178, f. 2, 2a, 2b; S. & C., No. 4488.

Sikkim; Möller.

[The types were from Borneo and Ceylon.—H. J. E.]

[Orthaga obscura, Moore, Descr. Atk., p. 204.

Darjeeling; Atkinson.

Mr. Moore has lent me a specimen of this, which seems very near to the last; but it is not in good enough condition to justify an opinion.—H. J. E.]

Genus Asopia, Treitschke, vii., p. 146; Led., p. 342. 23. Asopia platymitris.

Pyralis platymitris, Butler, P.Z.S., 1883, p. 166; S. & C., No. 4459.

Darjeeling (Brit. Mus.).

24. Asopia subresectalis, nov. spec.

One male of 17 mm. expanse.

This species has, judging from the figure and description, much conformity with Asopia resectalis, Lederer, Wien. Ent. Mon., vii., pp. 343, 458, pl. 7, f. 6, but as the author says that the third article of the palpi is porrect ("vorgeneigt"), whereas it is erect in subresectalis, and that resectalis is from Venezuela, and has the size of glaucinalis (24-26 mm.), I conclude that the Sikkim species is distinct. Labial palpi as long as the head, recurved, narrow, gradually attenuating, their second article not thickened towards the summit. They are pale brown, like the head and antennæ. The thorax and the fore wings, which very much resemble those of resectalis, are pale glossy luteous. Traces of a paler, almost straight, first line are perceptible near the base; the discal dot minute, dark, distinct. Edge of costa narrowly dark brown, but without pale streaks. Second line a little paler than the ground colour, almost regularly concave, without undulations. Outer third of wing deep chestnut-brown, paler from the middle till hind margin. Fringes, judging from the remainder at the anal angle, rufous. Hind wings purplish, with a faint pale discal line and yellowish fringes. Under side nearly as above, but paler, more uniform and duller, the lines rather more distinct. Abdomen luteous.

Sikkim; Möller.

25. Asopia gerontesalis.

Pyralis gerontesalis, Walker, Cat., 19, p. 896; Moore, Lep. of Ceylon, p. 263, pl. 178, f. 6; S. & C., No. 4447. Manihotalis, Guen., Spec. 8, p. 121, is from Cayenne, and the first line of f. w is not "tremblé"; but manihotalis, Gn., Réun., p. 61, may be gerontesalis, after Guenée's expression concerning the "extrabasilaire."

[A single worn specimen only.—H. J. E.]

Sikkim; Möller.

Genus Banepa, Moore, Descr. Ind. Lep., p. 204. 26. Banepa Atkinsonii.

Banepa Atkinsonii, Moore, Descr. Ind. Lep., p. 204, ♂♀; S. & C., No. 4491.

Vein 8 of hind wings is stalked with 7 in this species.

[Darjeeling, July, 1886; H. J. Elwes. Seems uncommon; taken once at light by me.—H. J. E.]

Genus Rhodaba, Moore, Desc. Ind. Lep., p. 205.

27. Rhodaba angulipennis.

Rhodaba angulipennis, Moore, Desc. Ind. Lep., p. 205; S. & C., No. 4492.

In this genus vein 8 of hind wings is also stalked with 7.

Sikkim, Tonglo, 10,000 ft., July; H. J. Elwes. Tendong, 8000 ft.; Elwes, August.

Genus Pseudolocastra, Warren MS.

28. Pseudolocastra inimica.

Locastra inimica, Butler, Ann. & Mag. Nat. Hist., 5th ser., vol. v., p. 448.

The species of Pscudolocastra, a MS. genus of Pyralidina, created by Mr. Warren, very much resemble those of Stericta, but vein 8 of hind wings is stalked with 7, and so the position of the genus is very different, rather more near hcmimatia, Lederer. I must, however, point here to Mr. Meyrick's note on this subject (Trans. Ent. Soc. of London, 1887, p. 187).

Darjeeling, 20th July and 20th August, 1886; H. J. Elwes. Sikkin; Möller.

29. Pseudolocastra syrichthusalis.

Bertula syrichthusalis, Walker, Cat., 16, p. 165.

Sikkim, 30th May, 1888; Möller.

[The type was from Borneo.—H. J. E.]

Genus Pannucha, Moore, Desc. Ind. Lep., p. 199. 30. Pannucha ænescens.

Pannucha ænescens, Moore, Desc. Ind. Lep., p. 200; S. & C., No. 4478.

The genus *Pannucha* is allied to *Pseudolocastra*, but the insects are more slender, their labial palpi shorter, narrower, with a short pointed third article.

Darjeeling, 20th July, 1886; Sikkim, 7000 ft.; H. J. Elwes.

31. Pannucha vicinalis, nov. spec. (Pl. XX., figs. 2, 2a).

A pair of 22 mm. (3) and 31 mm. (2) expanse.

This species is closely allied to anescens, but the terminal joint of the palpi is black, with a pale apex, instead of pale brown with a black circle, as in *enescens*, the central area of fore wings not dusted with black, the second line very strongly indented and projecting between the veins 3 and 5, and conspicuously shaded with black on the outside not only at the anterior margin, but also at the inner. Triangular black patch at the costa near the base shaped as in anescens. Palpi recurved, much narrower than the eves, a little longer than the head, especially in the female, first and second article pale olive-green. Antennæ of the male with short even ciliations. Head and thorax light olive-green. This is also the ground colour of the fore wings. They are marked, besides the above-mentioned conspicuous three black patches, with a small discal spot, two or three spots on the costa of the central area, and distinct spots on the hind margin, all black. First line indistinct, straight, undulated, hardly paler than the ground, as in ænescens. Central area with traces of a central shade. Costal and inferior third of second line straight, moderately indented, its central part abruptly advancing, ejecting long teeth. In ænescens the corresponding part is rounded, evenly indented throughout. No submarginal line. Hind wings grey, unmarked. Fringes pale brown with black dots. Under side grey, costa of fore wings marked with two black spots and pale brownish yellow; hind wings with a pale discal line.

Darjeeling, 4th August, 1886; H. J. Elwes. Sikkim; Möller.

32. Pannucha asopialis, nov. spec.

A male of 20 and a female of 22 mm. expanse.

Palpi in both sexes narrower and longer than in ænescens and vicinalis, the backward recurved tuft at the base of the male antennæ longer, attaining the scutellum, and the general appearance of the insect more slender than in those species. Head with palpi, antennæ, tuft, and thorax deep fuscous; basal fifth, a wedgeshaped discal mark, and the costa of fore wings also. Central part, occupying a little more than the half of the wing, pale olivaceous green, somewhat ænescent. Second line distinct, fuscous, outwardly bent below the middle, and basally with a gradually widening brown shade from vein 5 till the inner margin. Hindward this line is margined with pale olivaceous green. Remainder of wing deep cupreous brown; marginal line fuscous, with indistinct black spots. Fringes fuscous. Hind wings grey, with a fuscous spot near hind margin, and in the female with pale marginal dots. Fringes dark grey. Under side of fore wings fuscous grey; hind wings dirty white, their apical third and a discal line fuscous. Abdomen and legs of female fuscous grey, much paler in the male.

Darjeeling, 21st June, 1886 (3); Sikkim, 7000 ft., August, 1886 (2); H. J. Elwes.

33. Pannucha dimidialis, nov. spec.

A female of 21 mm. expanse.

Although I have but one female specimen of dimidialis, I do not hesitate to describe it, because the structure of the palpi is the same as in asopialis, and the neuration also, so that it evidently belongs to the same genus. Antennæ, palpi and face fuscous. Vertex and thorax pale whitish green. Basal half of fore wings also pale whitish green, with fuscous spots on the costa and faint traces of an undulated dark first line. Second half of the wing fuscous, with a denticulated whitish green second line, which is widening at the margins. Marginal line ochreous yellow with black dots. Ciliæ brownish yellow with blackish spots. Hind wings, abdomen, and legs pale grey, also the under side of the wings; a discal line darker, indistinct.

Darjeeling, 20th June, 1886; H. J. Elwes.

34. Cerasphora variegata.

Scopocera variegata, Moore, Descr. Indian Lep., Atk., p. 203, pl. 7, f. 4.

A female.

This species belongs to the same genus as Cerasphora (Craneophora, olim.) Ficki, Christ., Bull. de Moscou, 1881, p. 1. It is larger, and the second fascia of fore wings more flexuous. Mr. Christoph altered the name because he found the similitude with Craniophora, Snellen, Vlind. van Nederland. Macrol., p. 262, a genus of Noctuina, too great.

[Genus Sarama, Moore, Desc. Atk., p. 203. 35. Sarama Atkinsoni, Moore, l. c., p. 204.

From Darjeeling, in the collections of Mr. Moore and Dr. Staudinger.—H. J. E.]

Genus Endotricha, Zell., Isis. 1847, p. 592; Led., p. 344.

36. Endotricha flammealis.*

Pyralis flammealis, Wien. Verz., p. 123; Hübn., Pyr., f. 99; Wood, f. 782.

The specimens are darker coloured than the bulk of the European, but I do not perceive any other difference. Time of appearance the same as in North-west Europe.

Darjeeling, July, August; H. J. Elwes; Sikkim, 18th July; Möller.

[Common at light at Darjeeling in May and August.—H. J. E.]

37. Endotricha costæmaculalis.

Endotricha costamaculalis, Christoph, Bull. de Moscow, 1881, i., p. 4; Neue Lep. Amur., p. 92.

Darjeeling, July; H. J. Elwes.

[Described from Vladivostock and the Island of Askold. Seems rare in Sikkim.—H. J. E.]

^{[*} Doththa similata, Moore, Descr. Atk., p. 206, of which I have compared the type, is identical with this form. Specimens from Japan and Dharmsala in the British Museum also agree.—H. J. E.]

38. Endotricha serratalis, nov. spec.

Two females of 22 mm. expanse.

Serratalis has quite the neuration of flammealis, the palpi are also as in that species, and thus, though I do not know the male, I do not doubt that its right place is in Endotricha. Palpi, head, thorax, and basal area of fore wings chestnut-brown, the central area somewhat paler, the third or marginal greyish, except at the apex, where it is brown. Lines pure white; the first at one-third, almost perpendicular, with three faint undulations; the second, as usual in Endotricha, near to the hind margin, and so the central area very broad; this second line begins at seven-eighths of the costa; its first part is very slender, waved, parallel to hind margin, then, from vein 4 to the inner margin, it is turned inward, thicker and strongly indented. Costa of central area with minute white dots. Fringes fuscous with pale base. Hind wings pale grey. Under side variegated with brown and dark grey, and an indented discal line.

Sikkim; Möller.

[A rare species, which I have never taken myself.—H. J. E.]

Genus Scoparia, Haw., Lep. Brit., p. 498; Led., p. 347. 39. Scoparia pulveralis, nov. sp.

Six specimens of both sexes of 18—21 mm. expanse.

The shape of wings in this species is about the same as in centuriella, Wien. Verz., sibirica, Led., and dubitalis, Hübn., but it is distinguished by the very coarse and abundant black suffusion of the fore wings, which renders the markings of some specimens very indistinct. Palpi black with whitish base. Head blackish grey. Thorax bluish grey, much suffused with black scales. Fore wings broad, the hind margins straight, apex rather obtuse. Ground colour clear bluish grey, as in Scoparia frequentella, Staint., but in some specimens (from Sikkim interior) so much suffused with black that the ground seems black, sparingly suffused with bluish grey. First line indistinct, straight, slightly undulated, the ordinary adjoining black markings horizontal, elongate, large but indistinct, in one specimen filled up with ochreous brown, in the others black. The 8-shaped mark very broad, indistinct, black. or, in one specimen, filled up with ochreous brown. Direction of second line as in centuriella and dubitalis, hardly oblique, with a short but distinct curve, the costal part straight. Subterminal band black, the subterminal line as in dubitalis, close to hind

margin, broad, not touching the subterminal line, indistinctly interrupted in cell 4. Fringes grey, variegated with white and with black basal dots. Hind wings whitish, shining, thinly scaled. Abdomen pale grey. Under side of fore wings dark grey, of hind wings pale, with a faint darker discal mark and line.

Sikkim, Tonglo, 10,000 ft.; Darjeeling, July; H. J. Elwes; Sikkim interior; Möller.

40. Scoparia medinella, nov. spec.

Three specimens of $15\frac{1}{2}$ — $16\frac{1}{2}$ mm.

Distinguished by the well-visible, rather oblique, white first transverse line, the pale fascia behind the 8 mark, which, as in lætella, is connected with a black suffusion on the costa, and the broad black shade along the outside of the first line. Shape of wings as in dubitalis, the fore wings narrower. Palpi black with white base; head black. Thorax grey, mixed with black. Basal fourth of fore wings black, with bluish grey scales. First line very distinct, bluish white, hardly undulated, rather oblique, its direction as in ambigualis. Markings at first line very indistinct, merged in the above-mentioned broad black suffusion. Discal mark 8-shaped, oblique, filled with bluish grey, connected with costa by a black suffusion; behind it the bluish white ground colour of the wing forms a curved fascia, which, however, does not reach the inner margin. Second line very slender, its central curve short, flat, its inferior part parallel with hind margin; towards the base this line is narrowly edged with black. Subterminal band black, with a strongly interrupted whitish subterminal line. Fringes bluish white, with black basal dots. Hind wings shining, pale grey with whitish fringes. Under side of fore wings dark grey, the hind wings whitish with a grey apex, and an indistinct grey discal line.

Sikkim; H. J. Elwes. Sikkim interior; Möller.

Genus Eclipsiodes, Meyrick, Trans. Ent. Soc. Lond., 1884, p. 343.

41. Eclipsiodes pangialis.

Botys pangialis, Feld. & Rogenh., Novara, ii., 2, pl. 134, f. 25 (1874).

Pyralis cuprealis, Moore. Ann. & Mag. of N. H., ser. v., i, p. 235; 2nd Yarkand Mission, Lepid., p. 13, pl. 1, f. 26.

A female.

The front is protuberant, rounded; but the palpi are destroyed, so I cannot say whether they are of the same form as in *Crypsixantha*, Meyrick.

Sikkim; Atkinson.

Genus Botys,* Treitschke, vii., p. 78; v. Hein., Schmett. Deutschl. 2, Band i., 2, p. 58. (Botys, Led., p. 364, pars.)

42. Botys Silhetalis.

Pyrausta Silhetalis, Guenée, Delt. et Pyr., p. 166, No. 78.

Porphyritis Sikkima, Moore, Desc. Indian Lep., p. 207; S. & C., No. 4337.

A variety with deep orange markings on the fore wings, consisting in an oblique fascia near the base, not reaching the costa, and a second at two-thirds, which is perfect, much dilatated in its upper half, sinuated near the inner margin. In other respects it well agrees with Guenée's description of the type, which has unmarked fore wings. In the British Museum this variety is labelled maculata, Butler, and identified with Porphyritis Sikkima.

Sikkim; Möller.

43. Botys? quadralis.

Scopula quadralis, Walker??.

Two worn males.

The arrangement under *Botys* is only provisional; I think the species must form a new genus, for the costa of hind wings is sinuate, and the palpi are unusually long.

Sikkim; H. J. Elwes.

[The specimens agree with one in Atkinson's collection named Scopula quadralis, Walk., by Moore, but I can find no description of the species, which is not Dichromia quadralis, Walk.—H. J. E.]

^{*} Prof. Zeller, Verh. Zool. Bot. Ges., 1872, p. 503, corrected the name of the genus to *Botis*, because this word signifies a "hirtin" (shepherdess), but Lederer called the genus *Botys*, and I believe the reason alleged by Zeller is not sufficient for an alteration of the name.

44. Botys patulalis.

Botys patulalis, Walker, Cat., 34, p. 1405; S. & C., No. 4070.

Sikkim; Möller.

[Occurs at low elevations; not uncommon.—H. J. E.]

45. Botys euryclealis.

Botys curyclealis Walker, Cat., 18, p. 651.

A female.

The markings are nearly the same as in *Botys* cambogialis, Guenée, but the insect is larger, and has shorter labial palpi. I do not know the male.

Sikkim; Möller.

46. Botys coclesalis.

Botys coclesalis, Walk., Cat., 18, p. 701.

Sikkim; Möller.

[The type was from Borneo.—H. J. E.]

47. Botys ochrealis.

Botys ochrealis, Moore, P. Z. S., 1877, p. 614; S. & C., No. 4069.

Sikkim; Möller.

[Seems not uncommon at low elevations.—H. J. E.]

48. Botys præpandalis, nov. spec.

A dozen specimens of 22—29 mm. expanse.

The proper place of this Botys is evidently between the European hyalinalis and pandalis; it is, however, in the male sex devoid of the peculiar character displayed by the last-named species (upper side of fore wings* in the male with a groove at the base of the upper median vein, covered by a flat crest of scales). Besides, the ochreous yellow colour of wings and body, though, generally speaking, the same, is, in fresh specimens, more vivid;

^{*} Not hind wings, as Lederer erroneously states (Wien. Ent. Mon., vii. (1863), p. 365).

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the lines, especially the discal line of hind wings, are strongly serrated and interrupted, while in the above-named species this line is more sinuated and almost entire; finally, the abdomen of the male is but a little longer than the inner margin of hind wings, and the hind margin of fore wings much less oblique. Antennæ ochreous yellow, setaceous, distinctly ciliated in the male (in hualinalis and pandalis they are nearly bare). Labial palpi bicolorous, the first article and the adjoining parts of the throat and head pure white, the second and third ochreous brown. pandalis the second article of the palpi is also partly white. Front, vertex, and thorax ochreous yellow. Upper side of wings deep ochreous yellow, without any lustre, except on hind wings towards the anterior margin, where the colour is whitish, transparent, and a little glossy. The neuration is somewhat darker scaled than the cells, also the costa of the fore wings, which in some specimens even darkens to ochreous brown approaching the base. markings are deep ochreous yellow, and consist on the fore wing in an arched first transverse line with nearly perpendicular under half in a point, and a lunule in the discoidal cell, in a distinctly serrated second line, interrupted along vein 3, and quite as in the two above-mentioned European species, in an antemarginal (waved) line. The upper part of the latter, however, is more distinctly and more regularly bent on the fore wings and behind it; in none of the specimens is the hind margin obscurated, as frequently occurs in the allied species. Hind wings with a distinctly serrated, interrupted, discal line, and a waved line nearly parallel to the hind margin. Ciliæ deep ochreous yellow; marginal line and another on the base of the ciliæ darker. Abdomen deep ochreous vellow, with paler annulations and under side. Anal brush very short. Under side of wings ochreous yellow, slightly paler but not so pure as above. The waved (antemarginal line) fuscous and more diffused, the other markings only indicated. Discoidal cell of fore wings wholly fuseous, as is also the case, but not so thoroughly, in pandalis. Legs ochreous brown; a spot on the fore tibiæ, the anterior tarsi, and the outside of the somewhat thickened middle tibiæ, pure white.

Darjeeling, July, August; H. J. Elwes. Sikkim; Möller.

[A common species, which varies in the shade of yellow. I think it must have been hitherto confused with some other species.—H. J. E.]

49. Botys damastesalis.

Scopula damastesalis, Walker, Cat., 19, p. 1018.

Paliga damastesalis, Moore, Lep. of Ceylon, p. 350;
S. & C., No. 4147.

A very brightly marked specimen.

Sikkim; Möller.

[Evidently a rare species in Sikkim.—H. J. E.]

50. Botys tranquillalis.

Botys tranquillalis, Lederer, Wien. Ent. Mon., vii., pp. 371 and 466, taf. 9, f. 16.

Sikkim; Möller.

[Seems abundant, probably at low elevations. The type from Ternate.—H. J. E.]

51. Botys nobilis.

Pionea nobilis, Moore, Descr. Indian Lep., Atk., p. 224, pl. 7, f. 29.

A male.

Nobilis is no Pionea, Lederer; the maxillary palpi are not brush-like (buschig) and hairy, but smooth. The pattern of the design is also not that of Pionea.

Sikkim; Möller.

52. Botys flavofasciata.

Hapalia flavofasciata, Moore, Desc. Ind. Lep., p. 223, pl. vii., f. 19; S. & C., No. 4092.

Sikkim; Möller. Darjeeling; Brit. Mus.

The male is paler than the female, with more distinct markings, and has, at the under side of the fore wings, near the costa, between vein 7 and the stalk of 9 and 10, a small flat erest of lustrous scales.

53. Botys nubilalis.

Pyralis nubilalis, Hübn., Samml. Eur. Schmett., Pyral., f. 94 (3).

P. silacealis, ibid., f. 116 (?).

Botys silacealis, Treits., Schmett. von Europa, vii., p. 81; x., 3, p. 17.

A male, Sikkim; Möller. Another, from the Naga Hills, 5500—7000 ft., has the ochreous fascia behind the second line of fore wings much narrowed.

54. Botys plumbocilialis, nov. spec.

A female of 19 mm. expanse.

This species is a distant relative of paupellalis, Led., with which it agrees in some respects, as in the ochreous colour, the slender dark grey markings, and in the general appearance of the fringes; but it is much larger, paler, not reddish: of the fringes of hind wings the exterior half is white, and the costal part of the second line of fore wings is more rounded. Palpi porrected, rostriform, pointed, the basal half white, the upper pure ochreous yellow as the body and upper side of wings. Lines slender, distinct, the first obtusely broken below the middle, hardly undulated; the second with a distinct sinus in the middle, evanescent along vein 3. Discal markings very distinct, consisting in a dot, and in a nearly straight lunule on the disco-cellular. Hind wings with a similar discal line as the second of fore wings; submarginal line shady dark grey; marginal line also dark grey, as the fringes; these are glossy and have a still darker basal line; those of hind wings are white, with a thick, undulated, nearly black basal line. In paupellalis the fringes are white, with a black basal line, which is also undulated on hind wings. Under side paler, suffused with grey.

Darjeeling; 4th August, 1886; H. J. Elwes.

55. Botys octoguttalis.

Botys octoguttalis, Felder & Rogenh., Novara, ii., 2, pl. 135, f. 38.

Circobotys octoguttalis, Moore, Lep. of Ceyl., p. 343, pl. 182, f. 11; S. & C., 4122.

Sikkim; Möller.

[Seems rare in Sikkim. The type from Natal and Australia.—H. J. E.]

56. Botys effusalis.

Botys effusalis, Walker, Cat., 34, p. 1445. Sikkim; Möller.

[The type from Java.—H. J. E.]

57. Botys rubellalis, nov. spec.

A pair of 21 and 25 mm.

This species is allied to diffusalis, Guen., affusalis, Guen., and testacealis, Zell.; it has the same reddish colour, and, in fact, comes very near to affusalis, which is also an Indian species, and, after Guenée, of the same size. The fore wings are, however, not still more iridescent and transparent than in diffusalis, but, on the contrary, very dull and opaque, nor are the two first abdominal segments white; they are concolorous with the other. Labial palpi porrect, rostriform, twice as long as the head, bicolorous, ochreous brown, and white. Head, thorax, and abdomen sordid reddish ochreous. Upper side of wings sordid ochreous yellow, but evenly powdered with dark red scales on the costa, but not completely till the apex these scales are more abundant; markings also dark dull red, the first line almost as in croccalis, broken in cell 1 b, the second line more sinuous, with a tooth in cell 1 c, and not distinctly reaching the costa. Disco-cellular with a short streak, as in crocealis; marginal line and fringes a little brighter than the markings. Anterior third and inner margin of hind wings without red scales, a little glossy. Discal line sinuous, dark red, beginning at the limit of the paler costal part; discal spot macular, indistinct; hind margin with a dark red shade from veins 3-6. Marginal line as in fore wings; the fringes also, but their extremity more distinctly ochreous. Under side paler, with greyish hind margins. Body and legs almost white. In the male, which, indeed, is not so well-preserved as the female, and also darker, the markings are more indistinct. The abdomen is long and slender, as in crocealis, with a grey anal tuft.

Sikkim interior; Möller.

58. Botys coactalis, nov. spec.

A female of 25 mm. expanse.

I do not know any *Botys*, closely allied to this species, which is very distinct by its greyish ochreous brown fore wings, fuscous hind wings, and bright yellow fringes. Palpi porrect, rostriform,

twice as long as the head, bicolorous, white and brown. Face ochreous. Vertex and thorax greyish ochreous brown, as the fore wings, the edge of costa towards the apex narrowly yellow. Markings fuscous; the first line very faint, the discal mark lunular; the second line not undulated, twice obtusely broken. Fringes pale golden yellow, also on hind wings, which are not darker, but more greyish, and have a faint, angular, darker discal line, more distinct on the dark grey under side. Abdomen dark grey, paler beneath.

Darjeeling, 4th August, 1886; H. J. Elwes. [Seems a common species.—H. J. E.]

59. Botys Ausonialis, nov. spec.

Three specimens of 34 mm. expanse.

This species is slender, and has ample wings; the setaceous antennæ are fully as long as two-thirds of the costa of fore wings. Palpi porrect, twice as long as the head, but not very acute, bicolorous, greyish brown and white. Upper side of wings pure grey, nearly as in Heterodes Ausonia Cram., and Botys laticalis, Lederer, but unicolorous, dull, the costa of fore wings slightly paler, a common indistinct discal line darker, hardly sinuous, not dentated. Discal mark of fore wings also darker, small, indistinct. Fringes grey, as the wings, more glossy. Under side of wings with legs and body pure greyish white, the markings as on upper side, but the discal line very faint on hind wings. Fringes dark grey.

Sikkim; Möller.

60. Botys ablactalis.

Botys ablactalis, Walker, Cat., 18, p. 660 (var. α).
B. murinalis, Pagenstecher, Verhandl. d. Nassauisch.
Vereins für Naturkunde, 38 (1885), p. 54.

Walker's variety β of ablactalis seems to be specifically distinct.

Sikkim; Möller.

61. Botys tropicalis.

Botys tropicalis, Walker, Cat., 18, p. 670, 1.

Protonocera tropicalis, Warren MSS.

Coptobasis tropicalis, Moore, Lep. Ceyl., iii., p. 293,
t. 181, fig. 9; S. & C., No. 4276.

Sikkim: Möller.

[Described from Ceylon and figured by Moore, but the figure does not represent the species as identified by Messrs. Snellen and Warren.—H. J. E.]

62. Botys detritalis.

Botys detritalis, Guenée, Delt. et Pyr., p. 347, pl. 4, f. 10.

Darjeeling, July, 1886; H. J. Elwes.

[Described by Guenée from Brazil, Columbia, Guyana. —H. J. E.]

63. Botys stultalis.

Botys stultalis, Walker, Cat., 18, p. 669.

A male.

Not different from my Javan specimens.

Sikkim; Möller.

64. Botys subargentalis, nov. spec.

Acharana subargentalis, Swinhoe MS.

Two pairs of 28-31 mm. expanse.

A somewhat inconspicuous species; the upper side dark grey, a little lustrous, only with traces of the ordinary markings, but distinguished by the white under side of the hind wings and the body. Antennæ setaceous, in the 3 with very short (one-third) and even ciliation. Labial palpi only the half longer than the head, rostriform, obtuse, bicolorous, white and dark grey. Head, thorax, upper side of body and wings, dark grey, somewhat lustrous. Only traces of discal spots and the ordinary lines are seen. Fringes of fore wings concolorous, of hind wings whitish. Under side of fore wings dark grey, the base with a few white scales. Under side of hind wings white; a discal spot, the upper part of an imperfect discal line and sufiusion along the upper part of hind margin (especially towards the apex) dark grey. Fringes whitish. Under side of body and legs white, suffused with dark grey. Anal tuft of male blackish.

Near B. Korndörferi, Snell., Midd. Sumatra, Lepid., p. 62, but larger, more lustrous, with less distinct markings, more obtuse palpi, and nearly pure white under side of hind wings.

Sikkim; Möller, 7000 ft. Darjeeling; H. J. Elwes.

65. Botys caletoralis.

Botys caletoralis, Walker, Cat., 18, p. 651. Charema caletoralis, S. & C., No. 4233.

Sikkim; Möller.

[Seems a rare species, as only a single broken specimen was in Möller's collection. The type from Sylhet.—H. J. E.]

66. Botys caldusalis.

Botys caldusalis, Walker, Cat., 18, p. 650; S. & C., No. 4049.

Sikkim; Möller.

[Seems not uncommon at an elevation of about 3—4000 ft.—H. J. E.]

67. Botys tardalis.

Botys tardalis, Snellen, Tijdr. v. Ent., 23, p. 210; id., 26, p. 130, pl. 7, f. 6, 6a.

Sikkim, 7000 ft., August, 1886; H. J. Elwes. Khasia Hills, 4000 ft., September, 1886; id.

[The type from Celebes.—H. J. E.]

68. Botys robusta.

Hapalia robusta, Moore, Desc. Indian Lep., p. 222, pl. 7, f. 27; S. & C., No. 4102.

Sikkim, 7000 ft.; H. J. Elwes.

[Not very rare at 7—8000 ft.—H. J. E.]

69. Botys indistans.

Hapalia indistans, Moore, Desc. Indian Lep., p. 223; S. & C., No. 4094.

Darjeeling, 20th July and 4th August; H. J. Elwes. Sikkim; Möller. Dharmsala; Brit. Mus.

70. Botys oblita.

Hapalia oblita, Moore, Desc. Indian Lep., p. 222; S. & C., No. 4100.

Darjeeling, July, 1886; H. J. Elwes.

71. Botys Hypatialis.

Scopula Hypatialis, Walker, Cat., 19, p. 1014; Udea Hypatialis, Moore, Lep. of Ceylon, p. 349; S. & C., No. 4151.

Udea renalis, Moore, Descr. New. Lep., Atk., p. 224.

This species has, on the under side of the fore wings, the dark costal streaks towards the apex, which are also found in *B. prunalis*, W. V., *olivalis*, W. V., *costalis*, Eversm., and other allied species, with which it is also agreeing in the shape of wings and the long, porrect, pointed labial palpi.

Darjeeling, 20th July, 1886; H. J. Elwes. Sikkim interior; Möller.

[Seems common at light.—H. J. E.]

72. Botys octonalis, nov. spec.

A pair of 19-20 mm. expanse.

The proper place of this new Botys is evidently in the neighbourhood of prunalis, W. V., and olivalis, W. V., as is indicated by the dark costal striæ on the under side of the fore wings towards the apex, and among the allied species it is very distinct by the dark fuscous colour of the fore wings, and the perpendicular second transverse line, which is hardly denticulated, traced almost as generally in the *Phycitida*, with a regular curve in the middle, and straight upper and inferior parts. Antennæ setaceous, very minutely ciliated. Labial palpi twice as long as the head, porrected, dark fuscous, with whitish base; maxillary palpi distinct, somewhat pencil-shaped, also dark fuscous as the head and thorax. Abdomen dark grey, the segments white-margined, the under side whitish. Hind margin of fore wings regularly rounded, hardly oblique; the ground colour, described above, is more uniform in the darker female; lines slender, the first only traceable below the discoidal cell and straight, not dentated, second described above, both yellowish white. Stigmata well-sized, the orbicular oval, the reniform 8-shaped; no subterminal line, but a paler, yellowish, ill-defined patch towards the middle of hind margin; marginal line yellowish, with short, thick, black streaks in the cells. Fringes fuscous, with paler spots. Hind wings pale grey, dusted with dark grey along hind margin, broader towards the apex, two small discal spots and a discal line darker; marginal line as on hind wings, with less distinct black streaks; the fringes much paler, with a dark basal line. Under side of fore wings fuscous grey, the

costa ochreous yellow, with 4—5 dark spots towards the apex. Hind wings paler than on upper side, the discal line and spots much more distinct. Legs dark grey spotted with yellow, the middle tibiæ thickened.

Sikkim, 2-5000 ft., 6th July, 1886; H. J. Elwes.

73. Botys illectalis.

Botys illectalis, Walker, Cat., 18, p. 658. Ebulea opheltesalis, Walker, Cat., 19, p. 1010.

Botys albofimbrialis, Snellen, Tyds. v. Ent., 26, p. 128.

B. niveicilialis, ib., Midden-Sumatra, Lepidoptera, p. 64.

Hedylepta illectalis, Moore, Lep. Ceyl., iii., p. 277; S. & C., No. 4345.

Sikkim interior; Möller.

74. Botys cænostolalis, nov. spec.

A male of 22 mm. and a female of 16 mm. expanse.

This species reminds the genus Canostala, Led., but the palpi are as in Botys illectalis; it has also the same pure white fringes, with an undulated (stronger on hind wings) black basal line. The hind margin of wings is, however, more sinuated, and the fringes partly black. Palpi bicolorous, white and ochreous brown. tennæ distinctly ciliated. Head pale fuscous. Thorax (much damaged in the male) bright ochreous yellow in the female. Apex of fore wings rather acute, the upper half of hind margin nearly perpendicular; base of wings (rubbed in the male) bright ochreous in the fresh female, fuscous along the costa; central area mixed with ochreous brown and fuscous; the discal streak black, outwardly whitish, margined in the female; the lines slender, black, the first curved, the second feebly denticulated, its upper part very oblique, as in illectalis; marginal area with an obscure denticulated line; the upper part of this area is ochreous, the inferior ferruginous, the hind margin itself still darker. Fringes black at the apex, in cell 3 and at anal angle of fore wings, those of hind wings unspotted. Abdomen pale fuscous, in the male with a white spot on the penultimate segment; the upper side of anal tuft also white. Under side with body and legs sordid pale ochreous (3) or greyish (2), the wings with traces of a slender black discal line; fore tarsi white, spotted with black.

Sikkim; Möller (3). Java; Piepers (2). [According to Mr. Warren, this belongs to his genus

Leucocraspeda, and occurs in the Nilghiri Hills, where it has been found by Hampson.—H. J. E.]

75. Botys pulchralis.

Hydrocampa pulchralis, Moore, P. Z. S., 1867, p. 90; S. & C., No. 4430.

This species does not belong to Lederer's genus Hydrocampa; it might, I do not venture to say legitimize, but at least excuse the formation of a new genus, as it is endowed with a peculiar character, the costa of hind wings being widened near the base. I prefer, however, in the present case, avoiding the increase of the already too numerous genera of Pyralide, as in other respects the species is a Botys, A, a, Lederer, and has much conformity with B. sambucalis and stachydalis. These two well-known European species have, however, normally formed hind wings. Perhaps, on account of the above mentioned character, a new section (2) of this division of Botys might be formed, as the widened costa of hind wings is common to both sexes, though it is not so accentuated in the female. The antennæ are setaceous, the labial palpi porrected, not fully twice as long as the head, bicolorous.

Darjeeling, 4th August; H. J. Elwes.

[One of the commonest species at light during the rains, sometimes in swarms.—H. J. E.]

76. Botys scinisalis.

Botys scinisalis, Walker, Cat., 16, p. 648; Moore, P. Z. S., 1877, p. 619, pl. 60, f. 11; S. & C., No. 4040.

Botyodes costalis, Moore, Desc. Ind. Lep., p. 221.

This species has also been captured in Java by Mr. Piepers, at an elevation of 5000—5500 ft.; the specimens do not differ from the Indian, among which some have the whole basal area and the inferior part of the central area, from the discoidal cell to the inner margin, obscurated by the iridescent fuscous of the third area. Surely no specific difference is implied by that character; but it constitutes a well-marked variety. Sometimes the pale spots in cells 3 and 4 of fore wings are also wanting.

Sikkim, 7000 ft., 20th July and 26th August, 1886; H. J. Elwes.

77. Botys restrictalis, nov. spec.

A male of 36 mm. expanse.

Allied to scinisalis, of the same size, general colour, and pattern of design; the labial palpi also recurved, narrower than the eyes, smooth, with short but distinct terminal joint. The body, however, is a little stouter, the basal area of fore wings extends farther, at the costa beyond one-fourth, at the inner margin beyond onethird. As the second line is at the same distance from hind margin as in scinisalis, the central area is narrower, especially its inferior half, and it is also entirely warm ochreous yellow. Palpi and head brownish grey. Antennæ setaceous, ciliated (1), but much shorter than in scinisalis, where the ciliation is 11. Thorax rubbed. Abdomen brownish grey with whitish venter. Shape of wings as in scinisalis, the basal area lustrous brownish grey, its upper part obliquely limited, the first line hardly perceptible; central area warm ochreous yellow, strongly narrowed below the discoidal cell there, and with parallel sides, the inferior parts of the first and second lines being nearly straight, not oblique, as in scinisalis. Discal marks as in the allied species, rather smaller; central area with a protruding part at the bases of cells 3 and 4, as in scinisalis, but this is concolorous, not paler; third area lustrous brownish grey, with a warm ochreous suffusion near the costa. Basal third of hind wings ochreous, not whitish, as in the allied species, suffused with grey, and with a dark grey spot; remainder of the wing and the fringes lustrous brownish grey. Under side of wings grey, the basal half whitish, limited by a distinct, flexuous dark grey discal line with dark grey discal spots, the orbicular of fore wings reduced to a point, and the space between it and the reniform concolorous, not white, as in scinisalis.

Sikkim; Möller.

78. Botys fraterna.

Botyodes fraterna, Moore, Desc. Indian Lep., p. 221, pl. 7, f. 16; S. & C., No. 4037.

This species is no Botyodes, Led., the antennæ being normally formed.

Sikkim; Möller.

79. Botys consimilalis.

Botys consimilalis, Lederer, Wien. Ent. Mon., vii., p. 471, No. 65.

Sikkim; Möller.

[Described from two bad females in Felder's collection from Ternate and Amboina.—H. J. E.]

80. Botys angustalis, nov. spec.

Three males of 30-31 mm. expanse.

Evidently allied to Botys consimilalis, Led., also narrow-winged, and with a long abdomen, the colour and pattern of design the same, but a smaller insect (expanse of consimilalis, 40 mm.), the costa of fore wings suffused with brownish grey, the central part of the second line not confluent with the dark border, and, instead of a straight dark stripe on hind wings, a slender, angular, discal line with distinctly denticulated central part. Dark border of hind wings also narrowing towards anal angle, hardly attaining it and denticulated basally. Palpi recurved, narrower than the eyes, their terminal joint short but visible; they are distinctly bicolorous, white and brownish grey. Antennæ two-thirds of fore wings, as in consimilalis and sanguiflualis, Lederer, l. c., pl. 11, f. 1; they are setaceous, nearly bare. Thorax ochreous, mixed with brownish grey. Ground colour of wings ochreous, not so warm as that of Lederer's figure of sanquiftualis, the markings brownish grey; discal spots small, the first a point, the second somewhat reniform, as in the foregoing species; lines slender, the second sinuate, obtusely angular, thickened in cell 1b; costal suffusion covering the discoidal cell, but not reaching beyond the second line; dark border of fore wing not narrowing towards the apex. Fringes dark grey. On hind wings the upper and third parts of the discal line are somewhat suffused, and the elongated discal spot not so well separated from it as in the above-mentioned two species. Abdomen ochreous. Under side paler, marked as above.

Sikkim; Möller.

81. Botys iopasalis.

Botys iopasalis, Walker, Cat., 18, p. 652; Hapalia id., Moore, Lep. of Ceylon, p. 337, pl. 182, f. 14; S. & C., No. 4095. [This figure does not represent my species, as identified by Mr. Snellen, but it really refers to No. 83.*—H. J. E.] Sikkim, 7000 ft., August, 1886; H. J. Elwes.

82. Botys orobenalis.

Botys orobenalis, Snellen, Tyds. v. Ent., 22, p. 211; id., 26, p. 130, pl. 7, f. 7, 7 a.

Sikkim; Möller.

[Seems a rare species.—H. J. E.]

83. Botys recurrens.

Haritala recurrens, Moore, Desc. Indian Lep., p. 215, pl. 7, f. 11; S. & C., No. 4326.
Sikkim; Möller.

84. Botys plutusalis.

Zebronia plutusalis, Walker, Cat., 17, p. 478. Haritala plutusalis, S. & C., No. 4325. Sikkim; Möller. Darjeeling; Brit. Mus. [Not uncommon at about 4000 ft.—H. J. E.]

85. Botys demeter, nov. spec.

A male of 30 mm. expanse.

This species is closely allied to plutusalis, Walker, but it is larger, the ground colour of the upper side, though apparently also shining white, is more suffused with ochreous yellow; the shining greyish white fringes are not divided by two dark lines as in that species, but have only a well-defined black basal line, sharper and not so slender as in plutusalis; the hind margin of wings is ochreous, not shining white. Palpi recurved, whitish, marked with two black spots. Thorax white, with ochreous yellow spots. Upper side of wings white, shining, but strongly suffused with ochreous yellow; lines also ochreous yellow, darker and brighter than in plutusalis; their number is five on the fore wings, three nearly straight on the basal fourth, a third, broken in two sharp angles on vein 2 and a fifth, parallel to and at some distance of,

^{[*} Botyodes leopardalis, Moore, Descr. Atk., p; 221, t. 7, fig. 26, is a synonym of B. iopasalis, according to Mr. Warren. I have specimens from the Naga Hills which agree with Sikkim examples.—H. J. E.]

hind margin, reaching neither the costa nor the inner margin; first, third, and fourth lines with a conspicuous black spot at the costa, another round one on the disco-cellular, as in *plutusalis*. Hind wings with three lines, a short straight near the base, the discal line broken in two sharp angles, confluent with an ochreous discal streak, and a third at some distance of hind margin as on fore wings, but longer and more distinct. Under side of wings greyish white, with indistinct pale grey lines as above, and a discal spot on fore wings. Abdomen ochreous and white, with two black spots as in *plutusalis*. Legs whitish, the first pair with five black spots.

Sikkim; Möller.

86. Botys tigrina.

Haritala tigrina, Moore, Lep. of Ceylon, p. 312, pl. 182, f. 5; S. & C., No. 4327.

This species is also allied to *plutusalis*, but unicolorous deep ochreous yellow, only with three lines on fore wings, which each have black spot on the costa (the third line being grey, not ochreous), the discal spot is more elongate, and the fringes are shining dark grey.

Sikkim; Möller.

[A single specimen only. The figure in Moore's work does not agree with the description or with my species, as identified by Messrs. Warren and Snellen.—H. J. E.]

87. Botys definita.

Haritala definita, Butler.

Sikkim; Möller.

[? female of the next species.—H. J. E.]

88. Botys onustalis, nov. spec.

A male of 24 mm. expanse.

Palpi recurved, whitish, the outside of the second article dark grey. Upper side pure dark blackish grey, the face whitish margined, the hind margins of the abdominal segments narrowly pure white, a black spot on the penultimate, a pure white just before the black apex of the last. Fore wings with three nearly straight broad black transverse lines, all pale margined, the first and third hindward, the second basally; first line near the base, the second at one-third, somewhat oblique outwardly, the third at three-fifths, a little oblique inwardly, and with a feeble curve in the middle.

Central area of the wing marked with a black discal lunule, and a little narrowing towards the inner margin. Hind wings with a forked black discal line, which is white-margined towards hind margin; marginal line white, very pure from anal angle of hind wings upwards till vein 2 of fore wings, from thence more sordid till the somewhat paler apex of fore wings. Fringes grey, with a black basal and a slender white discal line. Under side paler, pure grey; four discal spots, and an angular discal line darker. Legs whitish, the fore tarsi purer, and the first pair of legs marked with four black spots.

This species belongs also to the group of *plutusalis*, but the wings are shorter and more ample.

Sikkim; Möller.

[Mimics Meliasomima xuthusalis, Wlk. (fide Warren).—H. J. E.]

89. Botys ruralis.

Phalæna ruralis, Scopoli, Entom. Carn., p. 242, No. 616. Pyralis verticalis, Hübn, Samml. Eur. Schmett., Pyr., tab. g, f. 57; Wood, f. 810.

Darjeeling; H. J. Elwes. Sikkim; Möller.

90. Botys butyrina.

Notarcha butyrina, Meyrick, Trans. Ent. Soc. Lond., 1886, p. 260.

A bad specimen. Possibly identical with B. paleacalis, Guén.

Sikkim; Möller.

[Described from Fiji.—H. J. E.]

91. Botys multilinealis.

Botys multilinealis, Guenée, Delt. et Pyr., p. 337, pl. 8, f. 11; Lederer, Wien. Ent. Mon., vii., p. 375, pl. 11, f. 3.

Synclera multilinealis, Moore, Lep. Ceyl., iii., p. 315; S. & C., No. 4306.

Darjeeling, August, 1886; H. J. Elwes. Sikkim, Möller. Ganjam; Minchin.

[Not uncommon at 4000 ft.—H. J. E.]

92. Botys inscisalis.

Botys inscisalis, Walker, Cat., 34, p. 1410.

Rehimena incisalis, Moore, Lep. of Ceylon, p. 290, pl. 181, f. 1; S. & C., No. 4137.

Sikkim; Möller.

[A very easily recognised species, which seems not uncommon.—H. J. E.]

93. Botys octomaculalis.

Filodes octomaculalis, Moore, P. Z. S., 1867, p. 95; S. & C., No. 4223.

Rhagoba bimaculata, Moore, Desc. Indian Lep., p. 218; S. & C., No. 4231.

A somewhat variable species. In some specimens each wing is marked with two transparent white spots, in others only with one, and in still others the spot of hind wings is also wanting. It does not belong to Filodes, Lederer; the antennæ are not longer than in Botys unitalis, Guén.

Darjeeling, 22nd August; H. J. Elwes.

[A tolerably common species.—H. J. E.]

94. Botys quadrimaculalis.

Scopula quadrimaculalis, Kollar, in von Hügel's Kashmir, p. 492.

Coptobasis? quadrimaculalis, Lederer, Wien. Ent. Mon., vii., p. 430, pl. 16, f. 12 (\$).

Darjeeling, 20th June, July; H. J. Elwes. Sikkim; Möller.

[Not uncommon at about 5000 ft. This is not the Botys quadrimaculalis of Bremer and Grey and Walker, No. 4274 of Swinhoe and Cotes' Catalogue, which is recorded from Darjeeling in error, I think, by Swinhoe.—H. J. E.]

95. Botys sordidalis.

Haritala sordidalis, Warren MSS.

Sikkim; Möller.

[Seems rare at about 4000 ft. The type is from Sarawak.—H. J. E.]

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96. Botys unitalis.

Botys unitalis, Guenée, Delt. et Pyr., p. 349, No. 411; Walker, Cat., 18, p. 655; S. & C., No. 4080.

B. megapteralis, Walker, Cat., 34, p. 1407.

Sikkim; Möller.

[Occurs also in Ceram (fide Walker) and Silhet (Guenée).—H. J. E.]

97. Botys opalinalis.

Botys opalinalis, Moore, P. Z. S., 1877, p. 620. Pachynoa opalinalis, S. & C., No. 4166. Sikkim: Möller.

98. Botys credulalis, nov. spec.

A male of 26 mm. expanse.

Palpi recurved, brownish, nearly unicolorous, as only the beginning of the base is whitish. Antennæ two-thirds of fore wings, setaceous, brownish grey. Upper side clear brownish grey, somewhat glossy, nearly unicolorous; only the costa of fore wings after the first line is paler sordid luteous, which colour vanishes towards the apex. The markings, a comma-form discal spot of fore wings, a punctiform on hind wings, and the lines are black; the first line is broken on costa of discoidal cell, thence perpendicular; second line beginning at three-fourths of costa, perpendicular till a curve on vein 3, thence nearly straight and obliquely directed to twothirds of the inner margin of hind wings; it is a little diffused and widened on hind wings; marginal line pale vellow, slender, distinct, basally shaded with blackish grey. Fringes blackish grey. Under side of wings much paler and purer grey, the costa unicolorous, the markings as above, less distinct. Body and legs also pale grey, but the fore tibiæ and tarsi white, with three black spots.

Sikkim, 1st May, 1888; Möller.

99. Botys attemptalis, nov. spec.

A male of 27 mm. expanse.

By its distinct markings, black marginal line, and somewhat glossy uniform luteous ground colour, this Botys seems to me very distinct. I do not know any closely-allied species, paucilinealis, Snellen, Tyds., 26, pl. 7, f. 8, 8a, excepted, which, however, has very different markings, more elongate wings, and an ochreous ground colour. Palpi recurved, luteous, only the base indistinctly white. Antennæ setaceous, with short ciliations. Head and upper side of body and wings luteous, the wings a little iridescent, paler

towards the inner margin of hind wings. Abdomen with a black dot on the penultimate segment; markings nearly black, sharp, consisting in a straight first line, obliquely directed from one-fourth of costa to one-third of inner margin, in lunular discal streaks on both wings (on hind wings more slender), and in an angularly sinuous second line, which begins at three-fourths of costa with a black dot, is thence straight till vein 6, has a denticulated projection from veins 5-3, is very faint in cell 2 and again distinct, parallel with the first line, but more sinuous from vein 2 till twothirds of inner margin. On hind wings the discal line is alike to the second of fore wings, but the inferior part is longer, straighter, directed towards the anal angle, which, however, it does not attain; marginal line thick, black, uninterrupted from apex of fore wings till vein 1c of hind wings, where it abruptly ceases; on the inner side it is narrowly margined with bright ochreous. Fringes dark grey, unicolorous, glossy. Under side paler, with similar markings as above. Body and legs whitish, the fore tibiæ with a black spot.

Sikkim; Möller.

100. Botys testudinalis.

Glyphodes? testudinalis, Saalmüller, Mittheil. Senckenberg. naturforsch. Ges., 1879, p. 297.

It is true that the anal tuft in this species is not unicolorous: it is black, with two white streaks; but in other respects it is very alike to several other species of this section (matutinalis, adipalis, fatualis), and so I should rather place testudinalis here.

Sikkim; Möller.

101. Botys dissipatalis.

Botys dissipatalis, Lederer, Wien. Ent. Mon., vii., p. 474, pl. 11, f. 13.

Samea quinquegera, Moore, Descr. Indian Lep., p. 207, pl. 7, f. 14; S. & C., No. 4249.

Sikkim; Möller.

[The type was from Felder's collection from Amboina.—H. J. E.]

[102. Botys sp.

A single specimen of what seems to me a distinct species, and which is unknown to Mr. Warren, but not fresh enough in condition for description.—H. J. E.]

2 R 2

Genus Eurycreon, v. Hein., Schmett. Deutschl., 2, band i., 2, p. 88 (Botys, Sect. B (Eurycreon), Led., pp. 365, 376).

103. Eurycreon nigrescens.

Hapalia nigrescens, Moore, Descr. Indian Lep., p. 222; S. & C., No. 4099.

This species undoubtedly belongs to Eurycreon, von Heinem.

Darjeeling, 20th July and 22nd August; H. J. Elwes. Sikkim; Möller.

[A rare species at Darjeeling.—H. J. E.]

Genus Parbattia, Moore, Descr. Ind. Lep., p. 225. 104. Parbattia vialis.

Parbattia vialis, Moore, Desc. Indian Lep., p. 225, pl. vii., f. 30; S. & C., No. 4538.

Sikkim; Möller.

Genus Conogethes, Meyrick, Trans. Ent. Soc. Lond., 1884, p. 314.

105. Conogethes punctiferalis.

Astura punctiferalis, Guenée, Delt. et Pyr., p. 320; S. & C., No. 4031.

Conogethes punctiferalis, Meyrick, Trans. Ent. Soc. Lond., 1884, p. 314.

Darjeeling, July, 1886. Khasia, 4000 ft.; H. J. Elwes. Sikkim interior; Möller.

[Occurs also at Brisbane, in Ceram, and China (Meyrick).—H. J. E.]

106. Conogethes hæmactalis, nov. spec.

A pair of 16—18 mm. expanse.

This species is smaller than, but in other respects has much conformity with, *C. punctiferalis*, the ground colour of body and wings is the same, also the pattern of the design, and the form of the palpi and antennæ. Only the dark metallic-scaled spot near the anal angle of hind wings, so conspicuous in the male of that species, is wanting in the corresponding sex of *hæmactalis*, the apex of fore wings is less acute, and the colour of the lines and disseminated spots deep blood or rather purplish red. Palpi

recurved, compressed, smooth, the third article triangular, short, as in punctiferalis; they are deep ochreous yellow, with a nearly black spot below the paler apex; maxillary palpi short. Antennæ setaceous, bare. Abdomen a little longer than hind wings, ochreous, with some purplish spots; anal tuft of male pale grey. Upper side of wings bright ochreous yellow, with deep blood or purplish red markings, consisting on fore wings in two irregular transverse lines and several spots, which are confluent behind the central part of the second line and towards the middle of the inner margin. Spots on hind wings less numerous and smaller, scattered over the surface, not arranged in distinct series. Basal half of fringes ochreous, dull, the second greyish, glossy. Under side pale yellow, with some blackish spots; the fore wings strongly suffused with dark grey. Legs pale yellow, the anterior pair with black spots on the tibiæ.

Sikkim; Möller.

107. Conygethes alboflavalis.

Conogethes alboftavalis, Moore, Descr. Indian Lep., p. 220; S. & C., No. 4030.

A single bad specimen only.

Sikkim; Möller.

[I have another from coll. Atkinson.—H. J. E.]

Genus Pionea, Gn., in Cat. Dup., p. 203; Pyralidæ, p. 367, Led.; p. 382.

108. Pionea forficalis.

Pyralis forficalis, L., Syst. Nat., ed. xii., p. 882,
 No. 334; Hübner, Samml. Eur. Schm., Pyr.,
 f. 58; Wood, f. 806; S. & C., No. 4172.

The specimens are rather smaller than European species, but not different in other respects.

Darjeeling, 20th July, 1886; Sikkim, 4—7000 ft., June, July; H. J. Elwes. Kulu; Young.

Genus Godara, Walk., Cat., 19, p. 808 (1859); Led., p. 383.

109. Godara comalis.

Pionea comalis, Guenée, Delt. et Pyr., p. 368; Moore, Lep. of Ceylon, p. 348, pl. 179, f. 2, 2a, 2b. Godara comalis, S. & C., No. 4176. Apparently a common species. I have also seen it from South Africa, and it is abundant in Java.

Darjeeling, July; H. J. Elwes.

[Not rare in Sikkim. I have it also from the Naga Hills (Doherty) and Bangalore (Minchin).—H. J. E.]

Genus Acharana, Moore, Lep. Ceyl., p. 285. 110. Acharana otreusalis.

Botys otreusalis, Walker, Cat. 18, p. 637.

Acharana otreusalis, Moore, Lep. of Ceylon, p. 285, pl. 180, f. 11; S. & C., No. 4112.

Botys! tridentalis, Snellen, Tyds., 15, p. 89, pl. 7, f. 14, 15; id., 26, p. 133.

My tridentalis is the same as otrcusalis, Moore, but the figures given in the Tydschrift are inexact in many points. The fore wings are too brownish, the base of hind wings too pale, the fringes erroneously white, the palpi of the 3 scarlet (!). As to the formation of a new genus by Mr. Moore, this is perfectly right; but the chief argument for it is the peculiar character found on the costa of the male fore wings, and figured, l. c., f. 15, as in other respects the species is a regular Botys. With Mr. Moore, I also do not believe that this species is the Botys phæopteralis of Guenée. It occurs, however, also in the West Indies; I have it from Curacao.

Darjeeling, 20th June and 20th July. Khasia, 6000 ft.; H. J. Elwes.

[The bands in Moore's figure are much more distinct than in my specimens.—H. J. E.]

Genus Cnaphalocrocis, Led., Wien. Ent. Mon., vii., p. 384.

111. Cnaphalocrocis jolinalis.

Cnaphalocrocis jolinalis, Lederer, Wien. Ent. Mon., vii., p. 384, pl. 2, f. 13, pl. 12, f. 7.

Botys iolealis, Walk., Cat., 18, p. 666.

Cnaphalocrocis medinalis, Moore, Lep. of Ceylon, p. 281; S. & C., No. 4118.

? Salbia medinalis, Guenée, Delt. et Pyr., p. 201.

Medinalis, Guenée, is perhaps the same as jolinalis,

but Guenée's description, of the female only and evidently made after a bad specimen, is too vague. Lederer's name, on the other hand, is supported by a good description and sufficient figures.

Darjeeling, 4th August, 1886; H. J. Elwes.

[Described from Hong-Kong, Borneo, and Amboyna. —H. J. E.]

Genus Dolichosticha, Meyr., Trans. Ent. Soc. Lond., 1884, p. 304.

112. Dolichosticha venilialis.

Asopia venilialis, Walker, Cat., 17, p. 373.

Dolichosticha venilialis, Meyrick, Trans. Ent. Soc. Lond., 1884, p. 304; S. & C., No. 4119.

Sikkim; Möller.

[Described from Queensland, and occurs also in Borneo. A single specimen only.—H. J. E.]

Genus Sameodes, *Snellen*, Tyds. v. Ent., 23 (1879), p. 217.

113. Sameodes cancellalis.

Botys cancellalis, Zeller, Micropt. Caffr., p. 34.

Samcodes cancellalis, Meyrick, Ent. Mo. Mag., 21, p. 202; id., Trans. Ent. Soc. Lond., 1886, p. 241.

S. trithyralis, Snellen, Tyds., 23, p. 218; id., 26, p. 134, pl. 8, f. 4, 4a, 4b.

S. pipleisalis, Moore, Lep. of Ceylon, p. 307, pl. 181,f. 14; S. & C., No. 4238.

Darjeeling, 21st June and 4th August; H. J. Elwes.

[Seems rare in Sikkim, but has evidently a very wide range.—H. J. E.]

Genus Crocidophora, Led., Wien Ent. Mon., vii., p. 386. 114. Crocidophora? flavicinctalis, nov. spec.

A male of 23 mm. expanse.

This species is closely allied to the genus Crocidophora, Lederer (Crocidosema in the Analyt. Table), only the shape of fore wings is not amygdaliform, as Lederer calls them, but Botys-like; however, as I do not possess any of Lederer's species, I prefer to range the present provisionally under this genus rather than to

orm a new one. Labial palpi porrected, rostriform, pointed; their base snow-white, the remainder bright ochreous brown as the distinct maxillary palpi and the white-edged front. setaceous, almost bare, their length three-fourths of the costa of fore wings. Shape of wings as in Botys, especially hyalinalis, flavalis; the fore wings dark fuscous brown, with a violaceous tinge, and glossy; they are margined with ochreous yellow, narrowly along the costa, broader and suffused round the apex, and again narrow along hind margin; fringes also yellow; costa of fore wings marked at two-thirds with a brown spot, indicating the origin of the second line, which is slender, blackish grey, and continued on hind wings, where it is nearly straight till vein 5, and subsequently runs closely to hind margin; a blackish first transverse line on fore wings and a discal dot are indistinct. Hind wings greyer, also with a narrow yellow hind margin, the marginal line brown, with minute spots. Under side of wings paler and greyer, marked as on upper side, the yellow border also paler, narrower, also continued along the costa of hind wings. Legs and under side of body pale yellow; upper side of abdomen fuscous; anal tuft long, pale. The fore wings have a very short discoidal cell, and a circular depression beyond it on the bases of veins 6 and 7, which is also visible on the upper side; besides, the crest which retains the frenulum on the under side near the base of the wings is unusually strongly developed.

Sikkim interior; Möller.

115. Crocidophora? flavicilialis, nov. spec. (Pl. XX., figs. 5, 5 a).

A male of 23 mm. expanse.

This species very much resembles the preceding, but the most striking difference is indicated by the name; besides, and this, as a structural character, is more important, it has no groove or depression on the base of the veins 6 and 7 of fore wings, and their discoidal cell is of normal length; at the base of the discoidal cell a small groove is visible, and the crest at the under side is as large as in flavicinetalis. Palpi porrected, rostriform, pointed, fully twice as long as the head, bicolorous, pure white and bright ochreous brown. Antennæ fully two-thirds of fore wings, setaceous, fuscous. Head, upper side of thorax, and fore wings bright ochreous brown, rather dull, uniform, a little violaceous on outer third; markings dark grey, very faint, consisting in two undulated lines and a reniform discal spot; the second line is retracted behind this spot; extremity of hind margin bright ochreous yellow, the

fringes paler, unspotted. Hind wings grey, with a darker discal spot, an indistinct pale central fascia, which is narrowing and vanishes below the middle; behind it a faint violet gloss is visible. Abdomen grey, the short anal tuft ochreous, the venter pale ochreous. Legs whitish. Under side of wings pale ochreous, a discal spot of fore wings dark grey, a common discal line faint, the crest at the base of fore wings pale grey, their costa suffused with dark grey; hind margin dark grey, violaceous on fore wings, narrowing and ill-defined on hind wings. Fringes yellow.

Sikkim; H. J. Elwes.

116. Crocidophora? lutusalis, nov. spec.

A male of 26 mm. expanse.

This species is again allied to the two preceding, but the wings are longer and narrower, the hind margin of the first pair more oblique, and their anal angle more rounded. Abdomen long, about twice as long as the inner margin of hind wings. A depression near the base of cell 1b of fore wings is distinct; besides, there are two longitudinal grooves behind the discoidal cell near to the costa, opposite a minute tooth-like flat process on it. Palpi porrect, rostriform, twice as long as the head, bicolorous, white and fuscous. Antennæ setaceous. Head, upper side of thorax, and wings sordid, glossy grey, the fore wings very uniform, the hind wings a little paler towards the base and whitish along the inner margin and costa; markings dark grey, but very indistinct, consisting on fore wings in two lines, a reniform discal spot, and in an angular discal line on hind wings. The second line of fore wings is retracted behind the discal spot, as in flavicilialis, and slightly pale margined behind. Fringes dark grey, those of hind wings whitish towards anal angle. Abdomen grey, paler towards the end, the last segment elongated, but the anal tuft itself very short. Under side of body whitish, the legs also, fore tibiæ with a black spot; under side of wings grey, whitish outwards of a faint darker discal line and on the basal half of hind wings; a crest at the base of fore wings, as in the two preceding species.

Mongpo, 2500 ft., 3rd June, 1886; H. J. Elwes.

117. Crocidophora? limbolalis.

Asopia limbolalis, Moore, Proc. Zool. Soc., 1877, p. 615; S. & C., No. 4256.

118. Crocidophora? amænalis, nov. spec.

A male of 26 mm. expanse.

Allied to limbolalis, but the basal half of the wings dusky, mixed with dark grey and ferruginous, the dark border of fore wings twice as broad at the costa as at the inner margin, while in limbolalis it is of equal width throughout, the central area of the same wings is yellow till the costa, which is brownish in the preceding species. Palpi porrect, rostriform, twice as long as the head, bicolorous, ochreous brown and white. Vertex brown, white-margined. Antennæ long, fully two-thirds of fore wings, setaceous; collar ochreous brown, thorax fuscous. Dark base of wings limited by a ferruginous line, which is very sinuous on fore wings, nearly straight (with a feeble basal curve) on hind wings. On fore wings this line basally cuts off a part of the lemon-yellow central area of the wings, which in the form of a fascia extends from the costa of fore wings till the hind margin of the second pair, where it ends, pointed in cell 1a; marginal part of the wings fuscous, with a strong lilac mixture, as in limbolalis; it is advancing a little basally on vein 2 of fore wings, and rapidly narrows on hind wings, where the basal margin is denticulated, and it is ending at vein 2, just before meeting the dark basal half of the wing. Fringes grey, with a darker inwardly pale-margined basal line. Under side of wings pale yellow, the basal half of fore wings towards the costa and their hind margin dark grey. Abdomen dark grey, with white margined segments above; below pale yellow, as the legs.

As in *limbolalis*, this species has a tuft or crest at the under side of fore wings near the base of cell 1b, only it is smaller, and a small depression (with a flat crest of

scales) at the end of discoidal cell.

Hapalia fasciata, Moore, Desc. Indian Lep., p. 223, pl. 7, f. 20, is evidently a similarly coloured and marked species, but neither the figure nor the description do perfectly agree with my specimen of amænalis; and besides, I suppose that Mr. Moore would have remarked and described the conspicuous tuft at the under side. So fasciata will be a Botys, Lederer.

Sikkim; Möller.

[Moore had a female only.—H. J. E.]

Genus Circobotys, Butler, Illust., 3, p. 77 (1879). 119. Circobotys limbata.

Circobotys limbata, Moore, Desc. Indian Lep., p. 220, pl. 7, f. 24; S. & C., No. 4123.

Sikkim interior; Möller.

120. Circobotys? phycidalis, nov. spec.

A pair; the 3 20 mm., the 2 22 mm. expanse.

This species may, provisionally at least, be placed in Circobotys; the shape of wings is nearly the same as in limbata, but the apex of fore wings, though strongly produced, not falcate. The antennæ of the male have an obtuse tooth-like projection at the upper side of the basal joint, and the first sixth of the shaft is curved downwards, with a tuft of scales in the curve, as in the knot-horns; the remainder is setaceous base, as the whole female antennæ are. Palpi fully twice as long as the head, rostriform, pointed, narrower than in *limbata*, and a little pilose. Front obtusely prominent. Head, thorax and fore wings luteous, mixed with grey; the costa ochreous, very narrow towards the base. Lines as in limbata, but more continuous and distinct. Fringes a little paler than the wing. Hind wings with fringes a trifle paler and more glossy than the front pair, the anal fourth whitish. Abdomen pale greyish ochreous, whitish beneath. Under side of wings pale grey, glossy, unmarked.

Sikkim; Möller. Mongpo, 4000 ft., 27th May, 1886; H. J. Elwes.

Genus Calamochrous, Led., Wien. Ent. Mon., vii., p. 386.

121. Calamochrous dichroma.

Ebulea dichroma, Moore, Desc. Indian Lep., p. 223; S. & C., No. 4133.

This species may be placed in Calamochrous, Lederer; the front is prominent, as it is in acutellus, Eversm. (though Lederer does not mention it), only more rounded; the palpi are porrect, and the shape of wings nearly the same, the apex of fore wings being still more produced. Nervulation normal, the discoidal cell of fore wings fully half as long as the wing.

Sikkim, 8000 ft., 1st August, 1886; H. J. Elwes.

122. Calamochrous brevipalpis, nov. spec.

A male of 33 mm. expanse.

Alhed to *C. dichroma*; the discoidal cell of fore wings also fully half as long as the wing, the nervulation normal, but the rostriform, bicolorous labial palpi shorter, not fully twice as long as the head. The setaceous, nearly bare, antennæ, the white-margined

front, the vertex and thorax, dull luteous. This is also the ground colour of the fore wings, which are acute, with a straight oblique hind margin; the luteous ground colour is suffused with reddish ochreous, infuscated along the costa, and the discoidal cell marked with two cloudy brick-red spots. Basal half of fringes dark grey, the outer pure white. Hind wings with fringes pale amber-yellow, somewhat lustrous, suffused with grey along the costa. Under side pale yellow; a discal streak and suffusion along the costa of fore wings dark grey. Legs whitish.

Sikkim; Möller.

Genus Stenophyes, Led., Wien. Ent. Mon., vii., p. 388. 123. Stenophyes gratiosalis.

Samea gratiosalis, Walker, Cat., 17, p. 357; S. & C., No. 4246.

The shape of wings in this species is about the same as in *Stenophyes serinalis*, Walker, Lederer.

Sikkim; Möller.

[The type of this species is from Ceylon.—H. J. E.]

124. Stenophyes histricalis.

Botys histricalis, Walker, Cat., 18, p. 655. Cotachena histricalis, Moore, Lep. Ceyl., iii., p. 276; S. & C., No. 4355.

Wings more Botys-like than in serinalis, gratiosalis, but still elongate; also the abdomen.

Sikkim; Möller.

[Occurs also in Ceylon and China.—H. J. E.]

Genus Polythlipta, Led., Wien. Ent. Mon., vii., p. 389. 125. Polythlipta ossealis.

Polythlipta ossealis, Lederer, Wien. Ent. Mon., vii., p. 389, pl. 12, f. 18; osseatalis, id., p. 477, No. 93.

Sikkim; Möller.

[The type, from Amboina, is in Felder's collection. Seems rare in Sikkim.—H. J. E.]

126. Polythlipta cerealis.

Polythlipta cerealis, Lederer, Wien. Ent. Mon., vii., pp. 389 and 477; Feld. & Rogenh., Novara, ii., 2, pl. 135, f. 34.

Glyphodes vagalis, Walker, Cat., 34, p. 1356; S. & C.,

No. 4196.

Sikkim; Möller.

[A common species at low elevations.—H. J. E.]

127. Polythlipta peragrata.

Polythlipta peragrata, Moore, Desc. Ind. Lep., p. 216, pl. vii., f. 15; S. & C., No. 4195.

Sikkim, 6000 ft., 29th May, 1886; H. J. Elwes.

128. Polythlipta? vinacealis.*

Botys vinacealis, Moore, P. Z. S., 1877, p. 619.

Charema vinacealis, S. & C., No. 4236.

Polythlipta albicaudalis, Snellen, Tyds., 23, p. 221; id., 26, p. 137, pl. 8, f. 7, 7 a.

This species is no *Botys*, but also not a true *Polythlipta*, and the formation of a new genus for it would be very suitable. I also note that the figure in the 'Tydschrift' is insufficient, the colour being much too reddish.

Sikkim: Möller.

[Seems fairly common at low elevations. This belongs to the genus *Tetredia*, Warren MSS.—H. J. E.]

Genus Filodes, Gn., Pyr., p. 317; Led., p. 389.

129. Filodes fulvidorsalis.

Pinacia fulvidorsalis, Geyer, in Hübner, Zutr. 4-tes Hundert, p. 15, f. 643, 644.

Filodes fulvidorsalis, Guenée, Delt. et Pyr., p. 317; Lederer, Wien. Ent. Mon., vii., p. 390, pl. 12, f. 17; Snellen, Tyds., 26, p. 137; Moore, Lep. of Ceylon, p. 331, pl. 182, f. 2, 2a; S. & C., No. 4220.

^{[*} Thliptoceras calvatalis, Swin., Trans. Ent. Soc. Lond., 1890, p. 275, is said to occur at Darjeeling, but an imperfect specimen lent me by Col. Swinhoe cannot be distinguished from the above.—H. J. E.]

F. patruclis, Moore, Desc. Indian Lep., p. 218; S. &C., No. 4224.

Var. Auxomitia mirificalis, Lederer, Wien. Ent. Mon., vii., p. 391, pl. 13, f. 1.

Gever's figure of this species does not agree with the text. The thorax, the base of fore wings, and the abdomen are, in fresh typical species, indeed fulvous ("hoch goldgelb," as the description intimates), not pale greenish ochreous yellow. I also must observe that in all my specimens the base of hind wings is concolorous with the rest, dark grey, not yellow. Lederer's figure, too, is insufficient, and though he says that in his specimen the abdomen was wanting, he figures it with a fancy-male one. Then I must point to a serious mistake of this otherwise so very sharp-sighted and conscientious author. Evidently not being acquainted with the male of fulvidorsalis, he was unaware of the absence of vein 8 in the hind wings (see my note, 'Tydschrift,' l.c.), as well as of the various other curious characters displayed by that sex, and described, as another genus and species (Auxomitia mirificalis), a variety of Filodes fulvidorsalis from the Nicobar Islands, which occurs also in Sikkim, and in which the thorax, the base of fore wings, and the abdomen do not show the bright fulvous colour of the type, but a luteous one. Perhaps Geyer's figure was drawn after a transitional specimen between the type and the said variety. All the characters of Lederer's mirificalis, of which he also had only one specimen without abdomen, but nevertheless figures this part on his plate, are those of the male sex of fulvidorsalis. The genus Auxomitia thus must be wholly dropped.

Mr. Moore's patruelis seems to be the transitional variety between the type and mirificalis. The oblique transverse discal black fascia is also found in the type,

though often indistinct.

Sikkim; Möller (var. mirificalis).

[Seems to be not an uncommon species in Sikkim, where I have taken both varieties; the type occurs as high as 10,000 ft. Occurs also in Java, Calcutta, East Pegu, and Silhet.—H. J. E.]

130. Filodes sexpunctalis, nov. sp. (Pl. XX., figs. 6, 6a).

Four specimens of 40-43 mm. expanse.

This species comes very near to fulvidorsalis, but is different by the still deeper fulvous colour of head, thorax, base of fore wings, and abdomen; then the base of each fore wing is only marked with three, though larger, black spots (in fulvidorsalis, six); no traces exist of a black discal line, which, indeed, is often indistinct in the allied species, and the under side of the wings is unmarked, blackish grey, only with the metallic line along the costa of fore wings, as in fulvidorsalis. Palpi and front nearly black; vertex deep bright fulvous. Antennæ luteous white, infuscated towards the base. Thorax bright fulvous, unspotted. Wings dull, black; cell 12 of fore wings with a line of bluish metallic scales from the base till the middle; the fulvous base of the fore wings with three black spots, one the origin of the subcostalis (vein 12), the second and third at the limit of the fulvous patch, at one-third of discoidal cell, and one-fifth of cell 1 b. Fringes concolorous, a little glossy. Fulvous upper side of abdomen with three rows of seven (3), or six (?) black and steel-blue spots, the last segment with blackish grey apex (2) or deep steel-blue anal tuft (3); sides and venter slate-grey, glossy. Legs blackish grey, the tarsi sordid yellowish white; fore legs not quite so hairy as in fulvidorsalis. Vein 8 of hind wings, present in the female, is also absent in the male of this new species, but there is no oblique transverse veinlet between the veins 6 and 7, as in fulvidorsalis.

Darjeeling, 20th July—4th August; H. J. Elwes.

[This was a very common species at light in Darjeeling, and no doubt exists in many collections under the name of fulvidorsalis.—H. J. E.]

131. Filodes? nigrolinealis.

Filodes nigrolinealis, Moore, P. Z. S., 1867, p. 95 (♀); S. & C., No. 4222.

Nigrolinealis is not strictly congeneric with the two foregoing species; the antennæ are not quite as long as the fore wings, vein 8 of hind wings is present in the male, the fore legs normal.

Darjeeling, 20th June, 1886; H. J. Elwes.

[The male has a thick tuft of pure white hairs at the end of the abdomen.—H. J. E.]

132. Filodes? fascialis.

Propachys fascialis, Moore, P. Z. S., 1867, p. 665;S. & C., No. 4726.

Certainly congeneric with the preceding species. Vein 8 of hind wings is present.

Sikkim, 8th April, 1888, &; Möller.

[A rare species.—H. J. E.]

133. Filodes? striolalis, nov. spec.

A female of 24 mm. expanse.

Labial palpi recurved, narrow, smooth, the third joint as long as two-thirds of the second, slender, rather pointed; maxillary palpi small, filiform. Wings and body elongate; the colour of head, thorax, abdomen, and wings pale ochreous, smooth, somewhat shining, especially the hind wings, which are a little transparent. Fore wings marked with two series of longitudinal black strigæ in the cells, situated at the place of the ordinary lines, the first feebly recurved, the second much stronger. Hind margin of hind wings broadly fuscous; fringes ochreous. Under side paler, marked as above. Legs ochreous.

Sikkim; Möller.

[This must be very rare, as only a single bad specimen was in Möller's collection.—H. J. E.]

[134. Tyspanodes flaviventer, Warren MSS.).

A specimen in the British Museum from Darjeeling, ex. coll. Lidderdale.—H. J. E.]

Genus Pachynoa, Led., Wien. Ent. Mon., vii., p. 391.

135. Pachynoa thoosalis.

Botys thoosalis, Walker, Cat., 18, p. 737. Pachynoa thoosalis, S. & C., No. 4170.

P. Walkeri, Lederer, Wien. Ent. Mon., vii., p. 391, pl. 13, f. 2.

I do not consider Lederer's alteration of Walker's name as admissible.

[Lederer's type was from Amboina; Walker's had no locality.—H. J. E.]

136. Pachynoa spilosomoïdes.

Pitacanda spilosomoïdes, Moore, Lep. of Ceylon, p. 334, pl. 183, f. 10, 3; S. & C., No. 4125.

This species has all the characters of *Pachynoa*, Led. Sikkim; Möller. Bangalore.

[The species, as figured by Moore, differs from my Sikkim female in being smaller, and having a black spot on inner margin of hind wing; mine has instead a row of black marks near the outer margin. A male from Barrackpore has both these markings, and is intermediate in size.—H. J. E.]

Genus Dysallacta, Lcd., p. 393. 137. Dysallacta negatalis.

Phalangiodes? negatalis, Walker, Cat., 17, p. 468. Dysallacta negatalis, Lederer, Wien. Ent. Mon., vii., p. 393, pl. 13, f. 6; S. & C., No. 4143. Sikkim; Möller.

Genus Botyodes, Guen., Delt. et Pyr., p. 320; Led., p. 394.

138. Botyodes asialis.

Botyodes asialis, Guenée, Delt. et Pyr., p. 321; Lederer, Wien. Ent. Mon., vii., p. 394, pl. 5, f. 6, pl. 13, f. 8f; Moore, Lep. of Ceylon, p. 335, pl. 183, f. 1, 1a; S. & C., No. 4034.

Darjeeling, July, August; H. J. Elwes. Sikkim; Möller.

[A common species at light at Darjeeling.—H. J. E.]

Genus Endocrossis, Meyr., Trans. Ent. Soc. Lond., 1889, p. 515.

139. Endocrossis flavibasalis.

Botyodes flavibasalis, Moore, P. Z. S., 1867, p. 95; Felder & Rogenh., Novara, ii., 2, pl. 135, f. 4; S. & C., No. 4036.

Sikkim; Möller.

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[Seems common at lower elevations than the last.—H. J. E.]

Genus Hoterodes, Gn., Delt. et Pyr., p. 211; Led., p. 394.

140. Hoterodes? cinerealis.

Hoterodes cinerealis, Moore, P. Z. S., 1867, p. 94; S. & C., No. 4217.

Also not a true *Hoterodes*, and requiring the formation of a new genus.

Darjeeling, July, August; H. J. Elwes. Sikkim; Möller.

[There is a great difference between the length of the antennæ in the sexes of this species not mentioned by Moore; the anal tuft is not yellow, as he says, only a little yellowish at the tip. The females were very common at light at Darjeeling, the males much less numerous.

—H. J. E.]

Genus Nevrina, Gn., Delt. et Pyr., p. 313; Ld., p. 395. 141. Nevrina Procopia.

Pyralis Procopia, Cramer, iv., p. 152, pl. 368, f. E. Neurina Procopialis, Guenée, Delt. et Pyr., p. 314. N. Procopia, Moore, Lep. of Ceylon, p. 330; S. & C., No. 4219.

Sikkim; Möller.

[Common at low elevations.—H. J. E.]

Genus Ćydalima, Led., Wien. Ent. Mon., vii., p. 397. 142. Cydalima conchylalis.

Margarodes conchylalis, Guenée, Delt. et Pyr., p. 303, pl. 8, f. 9.

Cydalima conchylalis, S. & C., No. 4200.

Darjeeling, 22nd August, 1886; H. J. Elwes. Sikkim; Moller.

[Common at light.—H. J. E.]

143. Cydalima laticostalis.

Margarodes laticostalis, Guenée, Delt. et Pyr., p. 303. Cydalima laticostalis, Moore, Lep. of Ceylon, p. 326, pl. 182, f. 4; S. & C., No. 4201.

144. Cydalima Elwesialis, nov. spec. (Pl. XIX., figs. 1, 1a).

Three males of 33, 36, and 37 mm. expanse.

For the generic characters of this species I refer to Lederer's "Beitrag zur Kenntniss der Pyralidinen," Wien. Ent. Mon., vii., p. 397. They are all present and well-defined, though the Phycidlike curve of the antennæ, as Lederer calls it, is rather feeble, not so conspicuous as in conchylalis; besides, there is a tooth-like projection on the fore side of the hamper of the antennæ, just above the basal article. The antennæ are each inserted on a flat depression, and, as in conchylalis, very minutely ciliated, pale brownish grey, their basal article violet, with a coppery lustre. Labial palpi only a good third longer than the head, the first article sordid white, the other two, like the maxillary palpi and the face, violet with coppery lustre. Collar as the face, with a whitish summit. Thorax and tegulæ white, with some coppery brown scales at their bases. Wings shaped as in conchylalis male: the apex of fore wings less pointed and produced, the hind margin not so straight and oblique; hind wings more triangular. Colour of wings white, somewhat transparent and glossy, with iridescent reflections. Costa of fore wings deep greyish brown, more violet at the base, and adorned with coppery metallic scales; the greybrown attains the apex of the wing, narrowing gradually from the base, where it occupies the whole basal half of the discoidal cell, and is not so sharply defined, but more greyish than towards the base; a white spot at the half of the discoidal cell emarginates the costal stripe a little, but a white more or less dark-edged lunule on the transverse veinlet lies nearly totally outside of it; hind margin grey, about 2 mm. wide, inwardly well-defined and straight, not attaining the anal angle of hind wings; marginal line strong. brilliantly metallic-grey, reminding the lustre of nickel; it is not perfectly continuous, and begins at vein 1c of hind wings with the grey border. Hind wings with a grey lunule on the disco-cellular. Abdomen whitish, with a long pencil-like anal brush of nearly black hairs; it is pointed, as the white one of conchylalis, not expanded, as in the males of Phakellura. Under side of wings nearly as above, the costa of fore wings darker than on upper side: cell 8 of hind wings also grey, but the hind margin and its metallic ornament less distinct; ciliæ greyish white. Legs sordid white, the front side of the first pair coppery violet, with pure white tarsi.

This species differs from conchylalis and laticostalis by the narrower costa of fore wings, by the broadly grey and brilliantly metallic-marked hind margin of all wings. The teeth at the base of the antennæ and the blackish anal brush are also wanting in both species. According to Guenée, *Cydalima nitidicostalis* is larger (41 mm.), and

has a dark-scaled nervulation.

Sisyrophora Pfeifferæ, Lederer, p. 399, taf. 12, f. 13, must also be an allied species, but the figure shows a somewhat more robust insect, with smaller hind wings and entirely dark collar. Besides, the figure which Lederer gives of the basal part of the antennæ (taf. 5, fig. 8) is different, and the "rauhe Beschuppung am Fuhlerschaft" is wanting. He also says nothing of a depression of the vertex, though it is conspicuous in Elwesialis.

Dedicated to H. J. Elwes, Esq.

Sikkim; Moller (one specimen of 33 mm.). Sumatra, Deli; Schagen van Leeuwen (the other two).

[This must be a common species from the number in Moller's collection, but I never took it myself. It occurs, however, at Mongpo, 4000 ft., and in Bhutan. I have also two specimens from the Naga Hills.—H. J. E.]

Genus Pachyarches, Led., Wien. Ent. Mon., vii., p. 398.

145. Pachyarches psittacalis.

Parodes psittacalis, Hübner, Zuträge, 3-tes Hundert, p. 30, f. 523, 524.

Margarodes psittacalis, Guenée, Delt. et Pyr., p. 308. Pachyarches psittacalis, S. & C., No. 4213.

Sikkim; Moller.

[Not uncommon at low elevations. Occurs also in China and the Khasia and Naga Hills.—H. J. E. [

146. Pachyarches vertumnalis.

Margarodes vertumnalis, Guenée, Delt. et Pyr., p. 309. Pachyarches vertumnalis, S. & C., No. 4215.

Mr. Warren's opinion is that Margarodes squamopedalis, Guenée (Enchocnemidia squamopedalis, Led.)' might be the male of vertumnalis, Guenée. This is perhaps right; I have no male of vertumnalis.

Sikkim; H. J. Elwes.

147. Pachyarches amphitritalis.

Margarodes amphitritalis, Guenée, Delt. et Pyr., p. 307. Pachyarches amphitritalis, S. & C., No. 4209.

I never have seen the male of this apparently rare but widespread species. According to Lederer, it belongs to *Pachyarches*.

Sikkim; Möller.

Genus Margaronia, *Hübn.*, Verz., p. 358; Walk., Cat., 18, p. 518 (*Margarodes*, Guen., Led., p. 398).

148. Margaronia fallacialis, nov. spec.

A male of 32 mm. expanse.

This species has very much the appearance of Pachyarches psittacalis, but the antennæ are normally formed, without a toothlike projection of the basal article or curve at the base of the hamper (see Lederer, Wien. Ent. Mon., vii., pl. 5, f. 7 (not fig. 6)), and there is no fold at the under side of the costa of fore wings; so the species belongs to Margaronia (Margarodes, Lederer). Palpi porrected, rostriform, bicolorous, white and brown. Antennæ green, minutely ciliated. Head, upper side of thorax, abdomen, and wings bright green, as in psittacalis and Enchocuemidia squamopedalis, the edge of costa of fore wings brownish, the dots on the disco-cellular hardly visible; no marginal dots or other markings. Fringes dark grey, shining; anal tuft black. Under side of wings pale glaucous green, greyish towards the hind margins, as in psittacalis, but the costa of fore wings nearly concolorous, only very slightly greyish; base of wings and body paler and more bluish, again as in psittacalis; middle and hind coxe and tibiæ pale bluish green; fore coxæ mixed with ochreous, the tibiæ with a black spot; all tarsi greyish white.

As the name Margarodes is preoccupied in the Hemiptera, I accept, following Walker and Moore, the name Margaronia of Hübner's 'Verzeichniss'; but it is my opinion that in other cases the so-called generic names of that much antidated Catalogue never can take priority over those of serious works. Hübner's 'Verzeichniss' is, as Zeller very justly observes, a mere name-store (Namen-magasin), without scientific value.

149. Margaronia aquosalis.*

Margarodes aquosalis, Snellen, Lepidoptera, in Reise in Midden-Sumatra, p. 66; id., Tyds. voor Ent., 26, p. 141.

Sikkim; Möller.

[Not uncommon at low elevations.—H. J. E.]

150. Margaronia unionalis.

Pyralis unionalis, Hübn., Samml. Eur., Schmett., Pyral., p. 132; Millière, Icones, ii., 12e livraison, p. 39, pl. 55, f. 3-6.

Sikkim; Möller. Darjeeling; H. J. Elwes.

151. Margaronia nigropunctalis.

Margarodes nigropunctalis, Bremer, Lep. Ost.-Sibir., p. 67, pl. 6, f. 5 (1864).

Margaronia neomera, Butler, Illustr., ii., p. 57. pl. 39, f. 5 (1879).

Perhaps Boisduval's quinquepunctalis, 'Faune de Madagascar,' Bourbon et Maurice, p. 117, pl. 16, f. 5, Guenée, 'Réunion,' p. 65, is also the same as Bremer's species, and then the oldest name; but I strongly suspect nigropunctalis only to be a variety of unionalis. Strongly-marked specimens of the former, in fact, look very different, but in others (ncomera, Butler) with small dark spots, only the dark line parallel to the hind margin remains as a distinctive character, and this line, too, is very faint in some specimens. I did not find any structural differences.

Sikkim, Tonglo, 10,000 ft., July; H. J. Elwes. Sikkim interior; Möller. Bhutan, Sept.; id.

152. Margaronia celsalis.

Botys celsalis, Walk., Cat., 18, p. 654. Margaronia celsalis, Moore, Lep. of Ceylon, p. 325, pl. 181, f. 4; S. & C., No. 4205.

Khasia Hills, 6000 ft.; H. J. Elwes. Sikkim; Möller.

^{[*} This appears to be the same as the species identified by Swinhoe with *Margaronia marthesiusalis*, Walk., Cat., xviii., p. 531 (1859), and agrees with the description of it. *Margaronia hilaralis*, Walk., *l. c.*, p. 532, may also be the same.—H. J. E.]

153. Margaronia lativitta.

Pitama lativitta, Moore, Descr. Indian Lep., Atk. p. 217, pl. vii., f. 21.

A male.

Mongpo, Sikkim; Gammie.

This species has all the principal generic characters of *Margaronia* (*Margarodes*, Led.). I do not perceive anything aberrant, nor does Mr. Moore point to a distinct character in his description.

Genus Enchocnemidia, Led., Wien. Ent. Mon., vii., p. 399. 154. Enchocnemidia squamopedalis.

Margarodes squamopedalis, Guenée, Delt. et Pyr., p. 309, No. 335, &.

Enchocnemidia squamopedalis, Lederer, Wien. Ent. Mon., vii., p. 399, pl. 13, f. 12.

See above, No. 136, Pachyarches vertumnalis, Guenée. Sikkim; Möller. Barrackpore, 29th July, 1886; Minchin. Car Nicobar; Doherty.

[Described by Guenée from Cape of Good Hope, and recorded by Lederer from Amboina.—H. J. E.]

155. Enchocnemidia phryneusalis.*

Margaronia phryneusalis, Walker, Cat., 18, p. 531. Enchocnemidia phryneusalis, Moore, Lep. of Ceylon, p. 328, pl. 18, f. 12; S. & C., No. 4204.

· Sikkim; Möller.

[I do not know how to distinguish this from the last; neither Walker or Moore seem to have been acquainted with it. I suspect them to be identical.—H. J. E.]

Genus Phakellura, Lansd., cf. Guen., Delt. et Pyr., p. 294; Led., p. 400. 156. Phakellura indica.

Eudioptis indica, Saunders, Trans. Ent. Soc. Lond., new series, i., p. 163, pl. 12, f. 5—7.

Phakellura Gazorialis, Guenée, Delt. et Pyr., p. 297, No. 304.

P. indica, S. & C., No. 4197.

^{*} The male of phryneusalis has no tufts at the hind legs, as squamopedalis, and the under side of hind wings is much more hairy.

Phakellura translucidalis and superalis, Guenée, are also said to occur in India, but I presume they are only found in America.

Darjeeling, 4th August, 1886; H. J. Elwes.

[Not uncommon at 4—7000 ft.—H. J. E.]

Genus Glyphodes, Guen., Delt. et Pyr., p. 292; Led., p. 401.

157. Glyphodes Zelleri.

Glyphodes Zelleri, Lederer, Wien. Ent. Mon., vii., p. 478, pl. 478, pl. 14, f. 3.

The white markings on fore wings more reduced, and the black margin of hind wings broader, especially towards the anal angle, than in Lederer's figure.

Sikkim; Möller.

[The type was from Amboina. The species is nearest to bicolor, from which it is distinguished by the broad border of the hind wing and white fringe of the hind angle of the fore wing.—H. J. E.]

158. Glyphodes bicolor.

Botys bicolor, Swainson, Zool. Illustr., 1st ser., 2, pl. 77, f. 2.

Glyphodes diurnalis, Guenée, Delt. et Pyr., p. 294, No. 300, pl. 5, f. 5.

G. bicolor, S. & C., No. 4178.

Sikkim; Möller.

[A common species at low elevations.—H. J. E.]

159. Glyphodes conclusalis.

Glyphodes conclusalis, Walker, Cat., 34, p. 1354; S. & C., No. 4182.

This species is allied to bicolor, but it is larger, and the fringes of fore wings entirely dark grey.

160. Glyphodes bivitralis.

Glyphodes bivitralis, Guenée, Delt. et Pyr., p. 293; Moore, Lep. of Ceylon, p. 322, pl. 180, f. 2, 2a; S. & C., No. 4179.

Sikkim; Möller.

[Fairly common at low elevations.—H. J. E.]

161. Glyphodes crithealis.

Desmia crithealis, Walk., Cat., 17, p. 344.

Glyphodes chilka, Moore, Descr. Indian Lep., p. 216, pl. 7, f. 9; S. & C., No. 4181.

Sikkim; Möller.

[Not uncommon at low elevations. The type was from China.—H. J. E.]

162. Glyphodes stolalis.

Glyphodes stolalis, Guenée, Delt. et Pyr., p. 293, pl. 3, f. 11; S. & C., 4189.

Sikkim, 8000 ft., 1st August, 1886; H. J. Elwes. Sikkim; Möller.

163. Glyphodes nyctealis.

Glyphodes nyctealis, Snellen, Lepidoptera, in Reize in Midden-Sumatra, p. 68.

Glyphodes zelimalis, Moore, Lep. of Ceylon, p. 657, pl. 215, f. 6, is an allied species.

Darjeeling, July and 4th August; H. J. Elwes.

164. Glyphodes naralis.

Glyphodes naralis, Feld, & Rogenh., Novara, ii., 2, pl. 136, f. 38.

Sikkim; Möller.

[Rare at about 4000 ft.—H. J. E.]

165. Glyphodes pyloalis.

Glyphodes pyloalis, Walker, Cat., 19, p. 973; Moore, Lep. of Ceylon, p. 321, pl. 180, f. 3; S. & C., No. 4188.

G. sylpharis, Butler, Illustr, 2, p. 57, pl. 39, f. 2.

Sikkim interior; Möller.

[Walker's type was from North China.—H. J. E.]

166. Glyphodes cæsalis.

Glyphodes cæsalis, Walker, Cat., 17, p. 499.

Synclera cæsalis, Moore, Lep. of Ceylon, p. 316, pl. 183, f. 7; S. & C., No. 4304.

Glyphodes crameralis, Snellen, Lepidoptera, in Midden-Sumatra, p. 69.

This species was rightly placed in *Glyphodes* by Walker. Sikkim; Möller.

[Not uncommon at low elevations.—H. J. E.]

167. Glyphodes sexpunctalis.

Oligostigma sexpunctalis, Moore, P. Z. S., 1877, p. 616, pl. 60, f. 12.

Talanga sexpunctalis, Moore, Lep. of Ceylon, p. 300, pl. 181, f. 13; S. & C., No. 4414.

Glyphodes lomaspilalis, Snellen, Tyds. v. Ent., 23, p. 223; id., 26, p. 144, pl. 8, f. 12.

Cataclysta nympha, Butler, P. Z. S., 1880, p. 683.

Darjeeling, 20th July and 4th August, 1886; H. J. Elwes. Naga Hills; Doherty.

[Common at light at Darjeeling.—H. J. E.]

168. Glyphodes lacustralis.

Glyphodes lacustralis, Moore, P. Z. S., 1867, p. 93, pl. 7, f. 11; S. & C., No. 4185.

Darjeeling, 20th June, 1886: H. J. Elwes. Sikkim, 5—7000 ft., 7th July, 1886; id., Sikkim; Möller.

[One of the most abundant species in Sikkim at light. —H. J. E.]

169. Glyphodes luciferalis.

Glyphodcs luciferalis, Walker, Cat., 34, p. 1412; S. & C., No. 4186.

Genus Pagyda, Walk., Cat., 17, p. 487. 170. Pagyda salvalis.

Pagyda salvalis, Walker, Cat., 17, p. 487; Moore, Lep. of Ceylon, p. 314, pl. 182, f. 6; S. & C., No. 4330.

Sikkim; Möller.

171. Pagyda lustralis, nov. spec.

A male of 26 mm. expanse.

This species is very distinct by its clear vellow, shining, brasslike ground colour, and the metallic lustre of a line running along the hind margin of the wings. Palpi formed as in salvalis, pale olive-brown, with a pure white base. Antennæ testaceous. Body concolorous with the wings, the apical fourth of the abdomen ochreous brown, with two clear white spots; anal tuft pale grey. Hind wings not quite as shining as the fore wings; all wings with two slender pale brown lines, outwardly margined with metallic scales; the first line of fore wings straight, the second twice obtusely broken on vein 3; lines of hind wings straight, parallel, the first at one-third, ending before the rounded anal angle, the second at two-thirds, running from vein 6 to the end of vein 3; metallic line along hind margin basally margined by another olive-brown one; marginal line itself pale brown, distinct. Fringes long, silky, pale yellow, lustrous, on hind wings with a slightly darker basal line. Under side pale straw-vellow, the outer margins narrowly fuscous; fore wings with a distinct, slender, dark streak on the disco-cellular. Legs pale yellow, the front and middle tibiæ and the tarsi pure white on the outside; fore tibiæ with a pale olive-brown spot.

Sikkim; Möller.

172. Pagyda arbiter.

Botys arbiter, Butler, Illustr., iii., p. 77, pl. 59, f. 13.

The genus Pagyda is not a very distinct one, but if it be maintained, then arbiter, Butl., must be considered as a species of it. I think that the proper place of Pagyda is here, and that it forms a link between Botys and Glyphodes.

Genus Heterocnephes, Led., Wien. Ent. Mon., vii., p. 402.

173. Heterocnephes reniferalis, nov. spec.

Three males and a female of 26-28 mm. expanse.

Allied to acamasalis (Chabula), Walker, Moore, Lep. of Ceylon, p. 317 = strangulalis, Snellen, Tyds., 23, p. 224; 27, p. 35, pl. 3, f. 1, 1a; all generic characters and the shape of wings the same, but a larger insect, the ground colour more brownish, the clear part is not so pure white, though also a little iridescent, the second large white spot of fore wings more distinctly reniform; no white fascia after the white line behind the said spot; on hind wings the dark discal streak confluent below with the discal fascia, and after the white line, which is limiting this fascia behind no white spot, but an ill-defined pale yellowish patch. Labial palpi whitish, with two black spots; front black, white-edged. Thorax brownish grey, with longitudinal white lines. Ground colour of wings fuscous, darkest in the middle, pale along costa of fore wings; basal fourth of fore wings with two or three (the second wanting or indistinct in two specimens), outwardly oblique, straight white lines; after the last an elongated white fascia, extending from the costa to cell 1b, in one specimen connected by a pale luteous line with the inner margin; beyond the middle a large, reniform, black-margined, iridescent white spot, extending from costa to vein 2, and between it and the first fascia a luteous C on vein 1; after the reniform spot a black-margined transverse white line, widening at the costa and also a little at inner margin, as in acamasalis, but less undulated; marginal fourth of wing pale olivaceous grey, uniform; marginal line black. Basal half of hind wings white, a little transparent, with an indistinct black line along inner margin, a black discal streak, connected with an undulated black discal fascia by means of a projection of this in cell 2; behind the black fascia is a white discal line, running from two-thirds of costa to anal angle; opposite the discoidal cell it is narrower; marginal third of wing fuscous, with an elongate pale luteous patch, pointed towards anal angle. Fringes yellowish white, with an interrupted black discal line, which is diffused at the apices and in cells 2-4 of all wings. Abdomen dark grey, indistinctly marked with white. Under side of wings marked nearly as the upper side, not so distinctly.

The genus Chabula, Moore, may be united to Heteroenephes; there are no perceptible differences.

[This seems to be most nearly allied to Glyphodes Pryeri, Butler, from Japan.—H. J. E.]

Genus Pygospila, Guen., Delt. et Pyr., p. 312; Led., p. 404.

174. Pygospila tyres.

Pyralis tyres, Cramer, Uitl. Kap., iii., p. 124, pl. 263, c. Pygospila tyres, Lederer, Wien. Ent. Mon., vii., p. 404; id., Moore, Lep. of Ceylon, p. 320 (part); S. & C., No. 4218.

P. tyrealis, Guenée, Delt. et Pyr., p. 312.

Pygospila tyres is not at all the same as Lomotropa costiflexalis, Guenée, though the females have some likeness together. Guenée, who has both species in one genus (Pygospila), positively says, "L'une est pourvue de plusieurs appendices très remarquables qui manquent totalement chez l'autre." Indeed, the males are quite different, and Lederer, in conformity with his system, very rightly based on the striking sexual characters the genera Pygospila and Lomotropa (Wien. Ent. Mon., vii., l. c.). To this description of the genus Pygospila may still be added that the anal tuft of tyres male is thick and clubby, quite different from the long and pointed abdomen of costiflexalis male.

The females, too, are not so very difficult to separate; the ground colour of the upper side is in tyres nearly black, with a strong violet gloss, without transparent streak in cell 2 of fore wings, with a broad square dark spot on the disco-cellular of hind wings, very distinctly limited transparent violaceous-white spots and slender white lines on the thorax. The ground colour of costification female is much paler, hardly more than violaceous fuscous, the violaceous-white spots are diffused; cell 2 of fore wings is marked with a distinct transparent white streak, the disco-cellular of hind wings with a narrow dark streak, and the thorax with ochraceous lines. I note this because some entomologists are still uniting these two very distinct species.

Darjeeling, 20th July and 4th August, 1886; H. J. Elwes. Sikkim, 8000 ft.; id. Tonglo, Sikkim; Möller.

[A common species up to 10,000 ft.—H. J. E.]

Genus Nosophora, Led., Wien. Ent. Mon., vii., p. 407. 175. Nosophora chironalis.

Botys chironalis, Walker, Cat., 18, p. 683. Nosophora chironalis, Lederer, Wien. Ent. Mon., vii., p. 407, t. 14, f. 12.

Sikkim interior; Möller.

[Described from Borneo, and occurs at Amboina, fide Lederer.—H. J. E.]

176. Nosophora (?) semivialis.*

Patania semivialis, Moore, Descr. Indian Lep., p. 209, pl. 7, f. 6; S. & C., No. 4300.

Two females. The species seems to me to belong to *Nosophora*, but I do not know the male, which is wanted to ascertain the true generic position.

Sikkim; Möller.

Genus Analtes, Led., Wien. Ent. Mon., vii., p. 407.
177. Analtes semitritalis

Analtes semitritalis, Lederer, Wien. Ent. Mon., vii., p. 407, tab. 14, f. 14.

Sikkim; Möller.

[The type is from Amboina. Seems very rare in Sikkim.—H. J. E.]

178. Analtes idyalis.

Botys idyalis, Walker, Cat., 19, p. 996.

Analtes idyalis, Moore, Lep. of Ceylon, p. 319, pl. 183,
f. 5; S. & C., No. 4116.

Sikkim; Möller.

[Moore's figure of this species is not good, the outer spots of the fore wing in all my specimens being much more distinct, and the hinder margin unicolorous. It occurs at about 4000 ft., but seems rare.—H. J. E.]

^{[*} I cannot see from Moore's figure and description how to distinguish this from Botys concatenalis, Walk., Cat., xxxiv., p. 1408, the type of which was from Darjeeling.—H. J. E.]

Genus Hedylepta, Led., Wien. Ent. Mon., vii., p. 407. 179. Hedylepta vulgalis.

Asopia vulgalis, Guenée, Delt. et Pyr., p. 202, pl. 6, f. 8.

Hedylepta vulgalis, S. & C., No. 4349.

Sikkim; Möller.

180. Hedylepta tristrialis.

Botys tristrialis, Bremer, Lep. Ost.-Sibir., p. 68, pl. 6, f. 7.

Tristrialis is neither a Botys nor a Coptobasis, in which genus it is placed in Staudinger and Wocke's Catalogue. Its characters agree very well with Hedylepta, still better than with Omiodes, the black anal tuft of the male being alone aberrant.

Darjeeling, 20th June, 1886; H. J. Elwes. Sikkim interior; Möller.

[My specimens are paler than Bremer's figure.—H. J. E.]

Genus Omiodes, *Guen.*, Delt. et Pyr., p. 355; Led., p. 409.

181. Omiodes analis.

Omiodes analis, Snellen, Tyds., 23, p. 227; 27, p. 37. Charema albociliata, Moore, Descr. Indian Lep., p. 219; S. & C., No. 4232.

Sikkim; Möller.

182. Omiodes noctescens.

Charema noctescens, Moore, Descr. Indian Lep., p.218; S. & C., No. 4235.

The characters of the genus *Charema*, Moore, do not differ from those of *Omiodes*, Guenée. I must note here that in *Omiodes* the maxillary palpi are not absent; they are very distinct in some of the species. *Noctescens* has recurved labial palpi, just as those of *Omiodes humeralis*, Guenée, and they are also bicolorous, only the inferior part is not whitish, but decidedly ochreous.

Sikkim; Möller. Mongpo, 4000 ft.; Gammie.

183. Omiodes palliventralis, nov. spec.

Three males of 30-32 mm. expanse.

This species, also a true Omiodes, is allied to noctescens, Moore, and still more to humeralis, Guenée; the shape of the wings and the length of the abdomen is the same as in these species, only the hind wings are shorter at the anal angle, and the patagia also shorter, not only than in humeralis, where they reach to the anal angle of hind wings, but also than in noctescens, where they attain twothirds of these wings. In palliventralis they do not reach beyond the middle of the said margin. Besides, the legs are only ochreous white, not deep ochreous, as in noctescens, and the under side of the body also. From both species palliventralis is distinct by the paler yellowish costa of the central area of fore wings. Labial palpi recurved, bicolorous, white and fuscous, as in humeralis. Antennæ setaceous, deep fuscous, as the thorax, the upper side of the abdomen (with the anal tuft), and the wings. The ochreous part of the costa of fore wings is not distinctly limited, extending in one specimen to the apex, and it is suffused with fuscous scales; markings black, the lines thick, suffused; the first oblique, the second sinuate, as in the allied species; discal spots of same size as in noctescens. Hind wings with a very indistinct discal line; fringes fuscous, but in cells 1b and 2 of fore wings white with ochreous base, white-tipped in cell 1 d and 2 of hind wings. Under side of wings paler, greyer, with traces of a discal line; sides of the venter fuscous grey; all tarsi and outside of fore tibiæ white, the remainder of the legs more greyish.

Sikkim; Möller.

Genus Omphisa, Moore, Lep. Ceyl., p. 318. 184. Omphisa anastomosalis.

Pionea? anastomosalis, Guenée, Delt. et Pyr., p. 373. Botys illisalis, Walker, Cat., 18, p. 653; Lederer, Wien. Ent. Mon., vii., p. 371, pl. 9, f. 12.

Omphisa illisalis, Moore, Lep. of Ceylon, p. 318, pl. 183, f. 4; S. & C., No. 4107.

Very rightly separated from *Botys* by Mr. Moore. Sikkim; Möller.

[Guenée's types, in very bad condition, were from Java, Walker's from Ceylon and North India. The species seems pretty common at low elevation, but I have never taken it myself.—H. J. E.]

185. Omphisa repetitalis, nov. spec. (Pl. XIX., figs. 6, 6 a).

Four specimens of 38-40 mm. expanse.

This species has all the characters of the genus Omphisa, Moore, 'Lepidoptera of Ceylon,' part 12, p. 317; in fact, it displays them even more decidedly than the hitherto solitary typical species, for the acute apex of the fore wings is more produced, and the hind margin of the fore and hind wings much more distinctly bent on vein 4, especially that of the latter. In other respects it is also very alike to anastomosalis, Guen. (Pionea), Delt. et Pyr., p. 373, illisalis, Walker, Lederer, Beitrag, pl. 9, fig. 12, and Moore, l.c., p. 318, pl. 183, fig. 4; colour and markings similar; the principal differences consist in the hind margin of the wings not being denticulated, the cilie being only streaked with dark brown on the veins 3 and 4 of both wings, not generally, and the hind margin of posterior wings being blackish from the apex till vein 5, gradually narrowing downwards, and with a graphitic lustre in the middle. Lederer placed anastomosalis in Botys, but its generic separation by Mr. Moore is quite justified, and the proper place of Omphisa, Moore, in Lederer's System, is between Gen. 115, Megastes, Guen., Led., and 116, Megaphysa, Guen., Led. Labial palpi formed as in anastomosalis, a little stouter, pale yellow, outwardly brown; maxillary palpi very distinct. Antennæ distinctly eiliated, somewhat serrated (they are setaceous in anastomosalis). Thorax sordid ochreous brown; abdomen too, but clearer, and with distinct pale ochreous yellow spots on basal half. Ground colour of upper side of wings a pale whitish ochreous yellow, as in the allied species, in the same way mixed with luteous brown on the fore wings; only the costa, except on the basal and apical fourths, which are deep brown, and the hind margin posterior to a double denticulated second transverse line from veins 3-8 are pale; first transverse or antemedial line strongly curved, single, dark brown, on the outside of the upper part with a nearly black shade, which becomes wider downwards, and almost covers a small, hyaline, orbicular mark; reniform mark oblique, quadrate, elongate, also hyaline, brown-bordered; below it one smaller hyaline spot at the base of cell 2; the inferior part of a deep brown discal line is visible below the spot; second transverse line described above, its inferior part indistinct, lost in the brown suffusion, which, below vein 4, extends fully to the hind margin; vein 7 is dark brown, a thick marginal line also, the ciliæ pale yellow, except at the apex and anal angle, where they are dark brown; two transversal brown streaks are also found at the extremities of veins 3 and 4. Hind

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wings paler and more hyaline yellow, their base suffused with black, the upper part of an ante-medial discal band luteous brown, dark-bordered, its inferior half blackish, basally ill-defined, a post-medial transverse line denticulated, double, black, basally shaded with blackish; it does not reach till the anal angle, but disappears below vein 2 in a fuscous cloud covering the anal fourth; upper part of hind margin adorned by the above-described blackish, or rather dark glossy grey, black-margined band; inferior part from vein 4 till anal angle with a thick marginal black line; ciliæ pale yellow; a thick basal line, interrupted from vein 3—1c, and two transverse streaks on veins 3 and 4 are dark brown. Under side yellowish white; the apices of all wings, a discal mark on fore wing, and traces of a transverse line, which only becomes distinct towards the inner margin of hind wings, are dark brown.

Sikkim; Möller.

[Seems as abundant as the last, but not easy to distinguish without close examination.—H. J. E.]

Genus Terastia, Guen., p. 211; Led., p. 415. 186. Terastia proceralis.*

Terastia procesulis, Lederer, Wien. Ent. Mon., vii., p. 415 and p. 480 (1863); S. & C., No. 4284.

Very large specimens.

Darjeeling, July; H. J. Elwes. Sikkim; Möller. Upper Assam and Naga Hills; Doherty.

[Not common at light, and occurs at from 4 to 7000 ft. —H. J. E.]

Genus Agathodes, Guen., p. 207 (Stenurges, Led., p. 416).

187. Agathodes ostensalis.

Perinephele ostensalis, Geyer, in Hübner's Zuträge, 5tes Hundert, p. 11, f. 833, 834.

Agathodes ostensalis, Guenée, Delt. et Pyr., p. 208; Moore, Lep. of Ceylon, p. 555, pl. 215, f. 10; S. & C., No. 4282.

Large specimens. I have one before me of 37 mm.

^{[*} This seems to be identical with Megaphysa egialalis, Walk., Cat., xvii., p. 383 (1859), from India, and with Agathodes diversalis Walk., l. c., xxxiv., p. 1307 (1865), from Darjeeling. If it is so, Walker's name has priority.—H. J. E.]

expanse. Geyer's figure (which is bad, as Guenée observes), measures only 30 mm., and my specimens from Java are, as a rule, not larger.

Lederer's alteration of Guenée's name is not admissible, because Achatodes and Agathodes are sufficiently

different.

Tendong, Sikkim, 8000 ft., 1st August, 1886; H. J. Elwes. Sikkim; Möller. Khasia Hills, 4500 ft., 24th September, 1886; H. J. Elwes.

[Not uncommon at light in Sikkim.—H. J. E.]

Genus Diasemia, Guen., p. 233; Led., p. 418. 188. Diasemia litterata.

Phalana litterata, Scopoli, Entem. Carn., p. 229, No. 574.

Pyralis literalis, Hübner, Samml. Eur. Schmett, Pyr., f. 86.

Sikkim interior; Möller.

Genus Siriocauta, Led., Wien. Ent. Mon., vii., p. 424. 189. Siriocauta testulalis.

Crochiphora testulalis, Geyer, in Hübner's Zuträge, 4 tes Hundert, p. 12, f. 629, 630.

Manica testulalis, S. & C. No. 4229.

Hydrocampa aquatilis, Boisduval, in Guérin, Icon. du Règne animal, Insect., pl. 90, f. 9.

Siriocauta testulalis, Led., Wien. Ent. Mon., vii., p. 424.

In Geyer's figure the antennæ are too short.

Sikkim; Möller.

[Occurs in South America, the Cape, and Amboina. Seems common in Sikkim.—H. J. E.]

190. Siriocauta simialalis.

Siriocauta simialalis, Snellen, Lepidopt. in Reise in Midden-Sumatra, p. 73; id., Tyds. v. Ent., 27, p. 39, pl. 3, f. 9, 9 a, 9 b.

Sikkim; Möller.

[Seems very near the last species.—H. J. E.]

Genus Bradina, Led., Wien. Ent. Mon., vii., p. 424. 191. Bradina? pionealis, nov. spec.

A fine and fresh female of 25 mm. expanse.

This species will probably form a new genus; the base of vein 11 of fore wings is recurved, and the veins 8-10 stalked; but as I do not know the male, which may be endowed with still other characters, I prefer to incorporate pionealis provisionally in Bradina, which, with it, seems to have affinities, though the palpi are rostriform and pointed. In general appearance the species reminds one of the genus Pionea, and also of my Odontia (better, Orobena, Sect. B) exoticalis, Tyds. v. Ent., 18, p. 191, pl. 11, f. 3, from Columbia, being smaller, the fore wings more elongated, their hind margin more oblique, the inner without tooth. Front a little obtusely prominent, ochreous brown, white-edged. Palpi twice as long as the head, porrect, pointed, the basal half white, the second ochreous brown. Antennæ setaceous. Thorax, fore wings, and fringes sordid straw-yellow, with a faint olivaceous tinge; the wings smooth, a little shining; they are unicolorous, with a black spot at one-fourth of cell 1b, and a second further on at threefifths, which is crossed by an indistinct, slender, denticulated line originating from a short, oblique, black streak at two-thirds of the costa, and ending in a black spot at three-fifths of inner margin; on the disco-cellular there is another black dot, minute but distinct. others on the marginal line. Hind wings yellowish white, shining, unmarked. Abdomen whitish. At the under side the fore wings are marked as above, grey, the outer third behind the transverse line, from vein 7 to inner margin, pale yellow. Hind wings as on upper side. Legs yellowish.

Sikkim; H. J. Elwes.

[A single specimen only of this species, for which, having lost its label, I can give no exact locality.—H.J.E.]

Genus Pleonectusa, Led., Wien. Ent. Mon., vii., p. 426. 192. Pleonectusa admixtalis.

Botys admixtalis, Walker, Cat., 18, p. 665.

Pleonectusa admixtalis, Moore, Lep. of Ceylon, p. 286,

pl. 180, f. 13; S & C., No. 4110.

P. sodalis, Lederer, Wien. Ent. Mon., vii., p. 426 and p. 481.

Tabidalis, Led., is not the same as admixtalis, Walker

(sodalis, Lederer); perfect specimens of both are quite distinct, but I suppose that Lederer's were faded, and so his descriptions are not striking. The same remark is applicable to Mr. Moore's figures.

Sikkim; H. J. Elwes.

[Tabidalis occurs at Amboina and Perak; admixtalis is described from Ceylon.—H. J. E.]

Genus Stegothyris, Led., Wien. Ent. Mon., vii., p. 427. 193. Stegothyris diagonalis.

Salbia diagonalis, Guenée, Delt. et Pyr., p. 201, No. 147; S. & C., No. 4301.

Stegothyris transversalis, Lederer, Wien. Ent. Mon., vii., p. 427 and p. 482, pl. 16, f. 5.

Botys plagalis, Moore, P. Z. S., 1867, p. 96.

Mongpo, 2500 ft., 3rd June, 1886; H. J. Elwes.

[The type was from Java.* Lederer gives Venezuela as the locality for his species.—H. J. E.]

Genus Orphnophanes, Led., Wien. Ent. Mon., vii., p. 428.

194. Orphnophanes productalis.

Orphnophanes productalis, Lederer, Wien. Ent. Mon., vii., p. 428, pl. 16, f. 7.

Sikkim; Möller.

Two imperfect specimens only. The type was from Amboina.—H. J. E.]

Genus Coptobasis, Led., Wien. Ent. Mon., vii., p. 429. 195. Coptobasis sulcialis.

Botys sulcialis, Walker, Cat., 18, p. 684.

A true Coptobasis, Lederer.

Sikkim; Möller.

[The type was from Borneo, and Lederer records it from Amboina.—H. J. E.]

^{*} I have many specimens from Sumatra and Java, but never received it from America (Snellen).

196. Coptobasis lunalis.

Botys lunalis, Guenée, Delt. et Pyr., p. 352, No. 417. Coptobasis lunalis, S. & C., No. 4271.

Botys thyasalis, Walker, Cat., 18, p. 734.

This species is a Coptobasis.

Darjeeling, 4th August, 1886; H. J. Elwes.

[The type was from Coromandel.—H. J. E.]

197. Coptobasis textalis.

Coptobasis textalis, Lederer, Wien. Ent. Mon., vii., p. 482, No. 117, pl. 16, f. 9.

A male.

The specimen is a dark one, and the second line of fore wings much less distinct than in Lederer's figure. I have, however, a male from Sumatra which forms the transition.

Darjeeling; Lidderdale.

[It is in the British Museum from Borneo.—H. J. E.]

198. Coptobasis luctuosalis.

Hyalitis Inctuosalis, Guenée, Delt. et Pyr., p. 290.

Ebulea Zelleri, Bremer, Lepid. Ost.-Sibirien's, p. 70, pl. 6, f. 12 (rough).

Coptobasis erebina, Butler, Illustr., ii., p. 57, pl. 59,

Luctuosalis, Guenée, is the oldest name for this species (see Oberthür, Ann. Soc. Ent. de France, 1885, Bull., p. lvii), but Guenée's description is not very striking. Mr. Butler rightly placed his erebina in the genus Coptobasis. I have not seen the species, but Mr. Elwes writes to me, "I have specimens from Sikkim agreeing with the species of Amoorland and Japan."

199. Coptobasis deficiens.

Coptobasis deficiens, Moore, Lep. of Ceylon, p. 556, pl. 215, f. 12; S. & C., No. 4269.

The palpi in this species are very long; still I believe that it may very well be considered as a *Coptobasis*. It belongs to Lederer's Section A of the genus.

Darjeeling, 20th July, 1886; H. J. Elwes.

200. Coptobasis denticulata.

Pramadea denticulata, Moore, Descr. Indian Lep., p. 211; S. & C., No. 4438.

This species is a true *Coptobasis*, Lederer, and belongs to Section A of the genus.

Mongpo, 4000 ft.; H. J. Elwes. Sikkim interior; Möller.

201. Coptobasis? æmealis.

Botys æmealis, Walker, Cat., 18, p. 671.

A female. I expect that the male will prove that this species is a *Coptobasis*, and therefore mention it here. The colour of the upper side agrees with that of the bulk of the species of the genus, but the apex of fore wings is rather obtuse, and they have, at the origin of the second line, very near to the costa, a distinct yellowish white reniform or bean-shaped mark; the hind wings have a whitish discal line, the central part of which is effaced. First line and discal streak of fore wings dark.

Sikkim, 7000 ft.;

[Agrees with the type from Ningpo.—H. J. E.]

Genus Diplotyla, Meyrick, Trans. Ent. Soc. Lond., 1886, p. 246.

202. Diplotyla exuvialis, nov. spec.

A male of 25 mm. expanse.

Shape of wings the same as in my *Ediodes? orientalis*, Tyds. v. Ent., 23, p. 233, and 27, pl. 4, f. 3, 3 a, 3 b, which is much better placed in Mr. Meyrick's new genus *Diplotyla*. The body, however, is more slender, the abdomen longer, and the antennæ have only one tooth-like projection at two-thirds. Antennæ whitish, distinctly ciliated. Palpi rather narrow, recurved, their terminal joint distinct, truncated; they are bicolorous, whitish and fuscous, as the front; vertex obscure ochreous. Upper side of body and wings dark fuscous; the fore wings have at two-thirds towards the costa an indistinct ochreous spot, but are otherwise unmarked, as well as the hind wings. Fringes cinereous brown, whitish in cell 1b of fore wing and 1d and 2 of hind wings. Abdomen twice as long as the inner margin of hind wings. Under side paler, more greyish, the body and legs whitish. Veins 8—10 of fore wings are stalked, and the maxillary palpi present, though very short.

Sikkim; H. J. Elwes.

Genus Syngamia, Guen., p. 187; Led., p. 434. 203. Syngamia floridalis.

Botys floridalis, Zeller, Micropt. Caff., p. 60. Æthaloëssa floridalis, Lederer, Wien. Ent. Mon., vii., p. 435, pl. 17, f. 2.

Botys Witialis, Felder & Rogenh., Nov., ii., 2, pl. 135,

Syngamia floridalis, Meyrick, Trans. Ent. Soc. Lond., 1886, p. 239.

I agree with Mr. Meyrick that the genus Æthaloëssa, Lederer, may be united to Syngamia, Guenée, Lederer.

Darjeeling, 20th June and 4th August, 1886; H. J. Elwes. Tendong, 1st August; id. Sikkim; Möller.

[This very wide-ranging species was not uncommon at light.—H. J. E.]

Genus Gonocausta, Led., Wien. Ent. Mon., vii., p. 436. 204. Gonocausta? vestigialis, nov. spec.

Three males of 25—26 mm. expanse.

In this species the shape of fore wings is as in Gonocausta zephyralis, Lederer, Wien. Ent. Mon., vii., p. 436, pl. 17, f. 5,* but the hind wings are more like those of Ætholix flavibasalis, Guen., male (the female of that species has shorter rounded hind wings); the palpi, however, are porrect, like those of zephyralis, and not recurved. Strictly, a new genus should be formed, but as I have only males of the new species, and thus am not able to give the characters in full, I prefer to place vestigialis provisionally in Gonocausta. Labial palpi porrect, rostriform, bicolorous, white and ochreous brown; maxillary palpi filiform. Ocelli present. Forehead rounded. Antennæ two-thirds of fore wings, setaceous, distinctly ciliated; apex of fore wings rather acute, slightly recurved; hind margin as in zephyralis, Led. Hind wings nearly triangular, the apex and anal angle distinct but obtuse, the hind margin nearly straight, with two shallow undulations. Colour of body and wings ochreous, the former and the base of wings darker, the hind margin of fore wings and the apex of hind wings pale fuscous; the remainder paler, shining, thinly clothed. Fore wings

^{*} I have a specimen of zephyralis from Columbia, but never received it from India. It is also not enumerated among the Indian Pyralidina in Colonel Swinhoe's 'Catalogue of the Moths of India,' and so the habitat given by Lederer may be considered at least to be doubtful.

with a curved ferruginous first transverse line at one-fourth; inner margin of hind wings with a ferruginous patch, surmounted with a tuft of woodly ochreous hairs on the base of vein 2; second line near hind margin, black, beginning with a strong oblique streak at costa of fore wings, then interrupted, continued on hind wings as a series of black spots; marginal line brown, more distinct on hind wings; fringes brown, paler on hind wings, and with a white spot in cell 6 of fore wings; no distinct discal spots. Under side paler, shining; markings as above; no tuft on hind wings. Legs yellowish, the tarsi white, the anterior with black apex, the middle and hind tarsi with black annulations. Nervulation of fore wings as in Botys; veins 4 and 5 of hind wings stalked.

Sikkim; Möller.

205. Gonocausta? ferruginata.

Agrotera ferruginata, Moore, Descr. Indian Lep., Atk., p. 209.

A male.

This species is congeneric with restigialis, but certainly not an Agrotera, the labial palpi being quite different from those of that genus, rostriform, obtuse, their third joint very short, the maxillary palpi distinct, filiform.

Ferruginata differs from vestigialis by its smaller size, the regularly arched upper part of the second line of fore wings; the discal line of hind wings is also not dissolved in a series of points, but nearly uninterrupted, undulated.

Sikkim; Atkinson.

Genus Zinckenia, Zell., Caff., p. 55; Led., p. 436. 206. Zinckenia recurvalis.

Pyralis recurvalis, Fabricius, Ent. Syst., iii., 2, p. 237, No. 407.

Zinckenia recurvalis, Zeller, Micropt. Caffr., p. 55 (1852).

Spoladea recurvalis, Guenée, Delt. et Pyr., p. 225, pl. 8, f. 5 (1854).

Hymenia recurvalis, S. & C., No. 4262.

Guenée was probably unacquainted with Zeller's previous and excellent description of the genus Zinckenia, otherwise he would not have formed a new name. That

of Hübner's 'Verzeichniss,' *Hymenia*, can never take precedence of Zeller's, as it is without description.

Darjeeling, 4th August, 1886; H. J. Elwes. Sikkim; Möller.

[One of the most abundant species at light in Darjeeling.—H. J. E.]

Genus Agrotera, Schrank, Faun. Boica, p. 163; Led., p. 439.

207. Agrotera scissalis.

Ædiodes scissalis, Walker, Cat., 34, p. 1526.

Sikkim; Möller. Naga Hills; Doherty.

[A single bad specimen only in Möller's collection. The type was from Java.—H. J. E.]

Genus Diathrausta, Lederer, Wien. Ent. Mon., vii., p. 438.

208. Diathrausta profundalis.

Diathrausta profundalis, Led., l. c., pl. 17, f. 4. Sikkim; Atkinson.

Genus Cirrhochrista, Led., Wien. Ent. Mon., vii., p. 440.

209. Cirrhochrista fumipalpis.

Cirrhochrista fumipalpis, Feld. & Rogenh., Novara, ii., 2, pl. 135, f. 31; Pagenstecher, Jahrb. des Nassanisch. Vereins, vol. 37 (1884), p. 135 (description).

Sikkim; Möller.

[A single specimen only of this peculiar-looking species, which must be rare in Sikkim. The type was from the Molucca Islands. I have another specimen from the Naga Hills.—H. J. E.]

Genus Pycnarmon, Led., Wien. Ent. Mon., vii., p. 441. 210. Pycnarmon jaguaralis.

Spilomela jaguaralis, Guenée, Delt. et Pyr., p. 283 (\$). Pycnarmon jaguaralis, Lederer, Wien. Ent. Mon., vii., p. 441, pl. 17. f. 11 (\$); S. & C., No. 4316.

The maxillary palpi are not absent, as Lederer says; they are, however, small and easily overlooked.

Sikkim, 2000 ft.; H. J. Elwes. Mongpo, 4000 ft.; id. Sikkim; Möller.

211. Pycnarmon abraxalis.

Zebronia abraxalis, Walker, Cat., 34, p. 1349. Pyenarmon abraxalis, S. & C., No. 4313.

Darjeeling, July; H. J. Elwes. Sikkim; Möller. Naga Hills; Doherty.

[A common species in Sikkim, somewhat variable in its markings.—H. J. E.]

Genus Spilomela, Guen., p. 280. 212. Spilomela ommatalis.

Spilomela ommatalis, Snellen, Tyds. v. Ent., 23, p. 235; id., 27, p. 44, pl. 4, f. 5, 5a.

The figure in the 'Tydschrift' is not elaborate, but sufficient for recognising the species.

Sikkim; Möller. Mongpo, 4000 ft.; Gammie. [Seems a common species.—H. J. E.]

Genus Zebronia, Hübn., Verz., p. 361. 213. Zebronia zebralis.

Pycnarmon zebralis, Moore, P. Z. S., 1867, p. 91, pl. 7, f. 12; S. & C., No. 4318.

This species is no *Pyenarmon*, as the antenne of the male are simple; but it is more nearly allied to *striginalis*, platinalis, and ovulalis, Guenée, which I have separated from *Conchylodes*, Lederer, as a distinct genus (*Ledereria*, Snellen, Tyds., 18, p. 256). However, as that name is preoccupied (see Tyds., 23, p. 236), I propose for it the name *Zebronia*, derived from the well-known name-store, Hübner's 'Verzeichniss.'

Sikkim; Möller.

214. Zebronia rigidalis, nov. spec.

Two females of 25 mm. expanse.

Labial palpi recurved, narrow, compressed, their terminal joint short, pointed; they are white, the first article marked with a

black spot; base of antennæ spotted with black. Head and thorax white, the latter with longitudinal black lines. Upper side of wings white, not very pure, a little yellowish, especially on the hind pair, which besides has a deep ochreous patch at anal angle; basal third of fore wings marked with three straight, vertical, broad black stripes, the centre with a black streak along costa, just in the middle, an elongated black discal spot, and a somewhat obliquely placed furcate black stripe; parallel to hind margin, more curved than this, we observe a fifth black stripe, which is attenuated towards the costa; hind margin black, also on hind wings; these are marked with five converging black stripes, which stop at the limit of the ochreous anal patch, except the second from the base, which crosses it and attains the inner margin. Fringes white, with two black lines. Basal half of abdomen white, with two lateral black stripes, the second half ochreous, with white marginal segments, their last marked with a black spot, and a black apex. Under side white, the markings of the upper side sketched with pale grey. Front legs with four black spots.

Sikkim; Möller.

215. Zebronia tibialis.

Synclera tibialis, Moore, Descr. Indian Lep., p. 216; S. & C., No. 4307.

Sikkim; Möller.

[A single specimen only.—H. J. E.]

216. Zebronia auroralis.

Haritala auroralis, Moore, Descr. Indian Lep., p. 215, pl. vii., f. 17; S. & C., No. 4319.

Sikkim interior; Möller.

[A single bad specimen only. The type was from Cherra Punji. According to Mr. Warren's arrangement this is rather a Pagyda.—H. J. E.]

217. Zebronia? bistrigalis.

Zebronia bistrigalis, Walker, Cat., 34, p. 1348. Pycnarmon bistrigalis, S. & C., No. 4314.

A male.

This species is provided with a tolerably large flat tuft of hairs and long scales at the under side of hind wings, on the costa, near to the base. It also bears only a

superficial resemblance to the Indian as well as to the American species, the abdomen being shorter, the wings broader, and the antenne not so long; so it might deserve the formation of a new genus between Zebronia and Conchylodes.

Sikkim; Möller.

[This is the type of genus Metaxyspila, Warren MSS.—H. J. E.]

Genus Ravanoa, Moore, Lep. Ceyl., iii., p. 284. 218. Ravanoa virgatalis.

Pycnarmon virgatalis, Moore, P. Z. S., 1867, pl. 92, f. 7—10; S. & C., No. 4317.

This species has, in the male sex, simple antenne, and is much more slenderly built than Pyenarmon jaguaralis, Guenée. In fact, it agrees, in facies and generic characters, with Ravanoa bilincolalis, Moore. Ravanoa creonalis, Moore, belongs to Meyrick's genus Dolichosticha.

Sikkim; Möller.

[This belongs to genus *Eutrichotis*, Warren MSS.—H. J. E.]

Genus Conchylodes, Guen., Lederer, p. 442 (pars.).

Perhaps it would be better to unite caberalis and the allied species under the generic name Aripana, Moore, Lep. of Ceylon, p. 312, to reserve the name Conchylodes, Guen., for diphtheralis and hebræalis, and to place striginalis, platinalis, argentalis, and ovulalis in a third genus Zebronia, Hübn.; but as I do not possess diphtheralis and hebræalis, I prefer to leave the question undecided. Lederer speaks of two sections (A and B) of his genus Conchylodes, but does not indicate the species belonging to them.

219. Conchylodes paucipunctalis, nov. spec. Pl. XIX., fig. 2).

A male of 20 mm. expanse.

I cannot consider this species, of which I have also four Javanese specimens of 20—21 mm. expanse, as a variety of caberalis, Guen., to which species it is allied, because, as in diaphana, Cram., meritalis, Walker (baptalis, Snellen), and judging after the figure, also in levinia, Cram., the costa of fore wings is not marked with black strie, as in caberalis, Guen., crinalis, Walk., Led., and

corycialis, Snell. As to argyria, Butler (Zebronia argyria, Illust., 3, p. 76, pl. 59, f. 9), it seems to be distinguished by the absence of transverse lines on fore wings and by their grey costa (though this latter character is not mentioned in the description). Mr. Butler describes and figures also four black spots on hind wings. Paucipunctalis differs from the African diaphana by the want of the apical black spots of fore and hind wings, by the position of the outermost of the four basal spots of fore wings, which is not placed on the same line as the first and second but lower, by the flexuous, not angular, second line, and by the smaller size. From meritalis it differs by its larger size, the want of the black stripe on hind margin of fore wings, and the want of the apical spot of hind wings. Levinia is a roughly figured small American species, which I do not possess, and leave undiscussed. Palpi white, like the thorax and abdomen, the latter with two black spots near the base, and a faint ochreous band with two minute black spots near the apex. Upper side of wings white, with two diffused ochreous transverse lines, the second flexuous; four black spots at base, as shown by the figure, one on the disco-cellular, a sixth on the costa above the fifth, a little more outward, a seventh at the origin of the second line, and the eighth in cell 2, near hind margin; the sixth and seventh affect in two specimens the form of black rings, in the other three they are very small. As in meritalis, the black spot on inner margin, at the extremity of the second line, is wanting. Hind wings only with three black spots; hind margin ochreous, but only in the Sikkim specimens distinctly so, in two of the Javanese nearly white. Fringes greyish white. Under side suffused with grey, especially along the costa and hind margin of fore wings.

Sikkim; Möller.

220. Conchylodes corycialis.

Conchylodes corycialis, Snellen, Tyds. v. Ent., 23, p. 238; id., 27, p. 44. pl. 4, f. 6.

Sikkim; Möller.

[A single specimen only. The type from Celebes.— H. J. E.]

221. Conchylodes meritalis.

Zebronia? meritalis, Walker, Cat., 17, p. 479.

Aripana meritalis, Moore, Lep. of Ceylon, p. 313; S. & C., No. 4312.

Conchylodes baptalis, Snellen, Tyds. v. Ent., 23, p. 237; id., 27, p. 44, pl. 4, f. 7.

In the figure in the 'Tydschrift' the apex of fore wings is too sharp, but otherwise it is tolerably accurate. The fourth basal spot (on inner margin) is, indeed, sometimes absent.

Sikkim interior; Möller.

[A single bad specimen only. The type was from Ceylon.—H. J. E.]

222. Conchylodes æriferalis.

Conchylodes æriferalis, Moore, P. Z. S., 1877, p. 618. Aripana æriferalis, S. & C., No. 4309.

Sikkim; Möller.

[Of this also there was only one bad specimen in Möller's collection. The type was from the Andaman Islands.—H. J. E.]

223. Conchylodes? marginalis, nov. spec.

A female of 20 mm. expanse.

This species very much resembles, by its pure white, black, marked wings, the genus Conchylodes, Lederer (sens. strict.); the form of the labial palpi and the neuration are also the same, but I do not know the male, which may perhaps be endowed with special characters. Labial palpi white, narrow, recurved, appressed; third article long, pointed, erect. I cannot distinctly perceive maxillary palpi; perhaps they are short and filiform. Head rounded, white, as the antenna, the body, and the wings; apex of abdomen black, also the sharply limited conspicuous hind margin of all wings and the markings; these consist in two rounded costal spots of fore wings, near to the base and at onethird, a discal spot and a flexuous second line, which is very slender on hind wings, almost extinguished on the inner half of fore wings, and gradually incrassating towards the anterior margin on their costal half. First line of fore wings very indistinct and slender; discal spot of hind wings small, elongate. Fringes pale grey, with a dark basal line. Markings of under side as above, but only sketched. Legs white, the anterior pair with black spots.

Sikkim; Möller.

[A near ally of this species is in the British Museum Collection from New Guinea.—H. J. E.]

Genus Synclera, Led., Wien. Ent. Mon., vii., p. 444. 224. Synclera traducalis.

Eudioptis traducalis, Zeller, Micropt. Caffr., p. 54. Spilomela retinalis, Lederer, Wien. Ent. Mon., i., p. 101.

Sikkim; Möller.

[Seems very common at low elevations, but I have not taken it myself.—H. J. E.]

225. Synclera subtessulalis.

Botys subtessulalis, Walker, Cat., 34, p. 1406. ? Synclera traducalis, Moore, Lep. of Ceylon, p. 316, pl. 182, f. 9.

Sikkim; Möller.

[This wide-ranging species seems less common than the last in Sikkim.—H. J. E.]

226. Synclera onychinalis.

Asopia onychinalis, Guenée, Delt. et Pyr., p. 205, pl. 6, f. 7.

Synclera onychinalis, Snellen, Tyds. v. Ent. 27. p. 45. Lepyrodes astomalis, Felder & Rogenh., Novara, ii., 2, pl. 135, f. 22.

Glyphodes astomalis, Meyrick, Trans. Ent. Soc. Lond., 1886, p. 224.

This species was omitted by Lederer, probably from inadvertence. Of course, it is no *Asopia*, and I believe the genus *Synclera* to be its proper place.

Sikkim interior; Möller.

[A single damaged specimen only.—H. J. E.]

Genus Lepyrodes, Guen., p. 277; Led., p. 445. 227. Lepyrodes geometricalis.

Lepyrodes geometricalis, Guenée, Delt. et Pyr., p. 278, No. 271, pl. 8, f. 6.

Mongpo, 4000 ft.; H. J. Elwes. Sikkim; Möller.

Genus Phalangiodes, Guen., p. 278. 228. Phalangiodes neptis.*

Pyralis neptis, Cramer, Uitl. Kap., iii., p. 128, pl. 264, f. Phalangiodes neptisalis, Guenée, Delt. et Pyr., p. 279. Sikkim; Möller.

229. Phalangiodes rivulalis, nov. spec. (Pl. XX., figs. 1, 1a).

Two males of 31 and $29\frac{1}{2}$ mm. and a female of 28 mm. expanse. This species must be placed between neptis, Cramer, and columalis, Snellen (Tyds. v. Ent., 23 (1879), p. 239; 27 (1883—84), p. 46, pl. 4, f. 8, ♀). It has the same shape of wings and nervulation as columalis, and the white spots are also without welldefined dark margins; but the ground colour of the upper side of the wings is still more uniform violet-grey, the basal half of hind wings is vitreous white, with a large oval dark central spot on the discocellular, and a sinuated hind margin. Besides, instead of the two elongated vitreous white spots along the somewhat paler hind margin of the wing, which we observe in neptis and columnalis, there is a white line, the angulated upper half of which is separated by an interruption in cell 2 from the sinuated inferior part that ends in the anal angle. Fore wings marked as in columnalis, but instead of the inferiorly dilatated vitreous white spot at one-third of the wing, we find two superposed elongate spots, and a point at the base of cell 2; second half of the wing marked with four vitreous white spots, as in neptis and columnalis; they are, however, widely separated, and the spot in the anal angle, which is somewhat lunular, as in neptis, is much narrower; ciliæ grev. Under side of the wings marked as above, but the ground colour paler, especially on hind wings. Legs nearly white, the anterior tarsi with grey hair on the first and second joints.

Sikkim, the male of 31 mm. (O. Möller); Sumatra, Deli (Schagen van Leeuwen); Java, Batavia (Piepers).

[Seems commoner than the last in Sikkim, but I have never taken it myself.—H. J. E.]

^{*} Phalangodes, Lederer. This name is preoccupied since 1842 for a genus of Arachnidæ (Moore, Lep. of Ceylon, p. 310), but I believe that Phalangiodes is still disposable.

Genus Pterygisus, Butler, Trans. Ent. Soc. Lond., 1886, p. 429 (Isopteryx, Guenée, Lederer).

230. Pterygisus fædalis.

Isopteryx fædalis, Guenée, Delt. et Pyral., p. 228, pl. 4, f. 7.

I. tenellalis, ibid., p. 228.

Physematia epispila, Meyrick, Trans. Ent. Soc. Lond., 1886, p. 257.

A male.

As the name *Isopteryx* was pre-occupied, Mr. Butler changed it into *Pterygisus*.

Sikkim?;

Genus Hydrocampa, *Latreille*, Fam. Nat., p. 478; Led., p. 451.

231. Hydrocampa exsolvalis.

Hydrocampa exsolvalis, Snellen, Lepidoptera, in Reize in Midden-Sumatra, p. 76 (1880).

Cymoriza inextricata, Moore, Descr. Indian Lep., p. 210, pl. vii., f. 7 (3); S. & C., No. 4390.

C. rivularis, Moore, Descr. Indian Lep., p. 210, pl. vii.,
 f. 8 (♀); S. & C., No. 4395.

This species is no *Cymoriza*; it is true that the characters of *Hydrocampa*, Lederer, are also not strictly applicable to it, but as I have not yet had the opportunity to examine a male, I abstain from forming a new genus, which I suppose will be necessary.

Sikkim; Möller.

232. Hydrocampa simplalis, nov. spec.

A female of 19 mm. expanse.

This species belongs to Lederer's Section A of the genus Hinterflügelrippen normal); the markings, however, are less complicated, the first line of fore wings absent, the upper part of the second regularly arched, not sinuous or angulated. Antennæ, palpi, head, thorax and the ground colour, the wings white, not very pure, a little greyish. No first line nor discal spot; second line arched, the upper part from the costa to vein 3 distinct, nearly black, the inferior hardly visible. Hind wings with a black discal spot and a thin sinuated grey discal line. Hind margin narrowly

pale ochreous, as in the allied species, basally margined by a waved dark grey line, which is more distinct towards the apices of the wings. Behind the second line of the fore wings, the discal line of the hind wings and the hind margin, the ground is clouded with pale fuscous. Fringes pale grey.

Sikkim; Atkinson.

Genus Oligostigma, Guen., p. 260. 233. Oligostigma colonialis.

Oligostigma colonialis, Guenée, Delt. et Pyr., p. 262, No. 248; Snellen, Tyds. v. Ent., 19, p. 189 and p. 198, pl. 8, f. 3, a—d; S. & C., No. 4407.

On the figure in the 'Tydschrift' the first unocellated spot on the margin of hind wings is not distinctly indicated.

Sikkim; Möller.

[I have never taken any species of Oligostigma myself in Sikkim, but Möller's collectors got them not uncommonly at low elevations.—H. J. E.]

234. Oligostigma saturatalis, nov. spec.

A female of 25 mm. expanse.

This genus comes next to simplicialis, Snell., and latifascialis, Snell. (Tyds. v. Ent., 19, pp. 189 and 201); it differs from the first by the very broad deep ochreous central fascia of hind wings, which is still broader than in *latifascialis*, leaving only a narrow streak of the lustrous white ground colour between it and the black bordered yellow margin; this margin is marked with three white black-margined spots, as in *simplicialis* (in *latifascialis* with two), and the trigonous central patch of fore wings is also shaped as in the first species; it is deep ochreous, with sinuous dark grey basal and hind borders, extending till the costa. All other markings are deep, dull, pure ochreous yellow, and consist, on fore wings, of three stripes along the costa and inner margin, while the third, narrower and curved, is found in cell 1b; these are all without darker margins. Two others are parallel to the hind margin, and of these the interior has only a slender black margin at the outside; the exterior has them on both sides, slender, distinct, and waved. Fringes dark grey, with a darker spot at the apex. On hind wings the central yellow fascia is diffused over the apical third, and the fringes are grey, with a darker basal line. Veins

8—11 of fore wings stalked; 6—7 from a point with 8; 3—5 from a point, also 4 and 5 of hind wings; disco-cellulars very oblique.

Sikkim; Möller.

235. Oligostigma simplicialis.

Oligostigma simplicialis, Snellen, Tyds. v. Ent., 19, p. 189 and p. 201, pl. 8, f. 6.

The figure in the 'Tydschrift' is not very exact; the tinge of the yellow markings on the apical part of the fore wings is too brownish, and the yellow discal fascia of hind wings should have been diffused just behind the three ocellated spots.

Sikkim interior; Möller.

236. Oligostigma sejunctalis.

Oligostigma sejunctalis, Snellen, Tyds. v. Ent., 19, p. 189 and p. 207, pl. 9, f. 11.

Sikkim; Möller.

237. Oligostigma papulalis, nov. spec.

A male. Length of a fore wing, 12 mm.

In this species the third article of labial palpi is distinct and club-like, while in all the other species of my section B of the genus it is short, truncate, or pointed. Basal article of antennæ with a peculiarly shaped, slender, clubbed projection; the discoidal cell of fore wings with a depression, covered on the upper side by a conspicuous flat crest of scales, inserted on the costa of the cell; margin of hind wings marked with four large minutely whitecentred spots upon a wholly unbordered pale ochreous stripe. By these characters papulalis is very distinct. Ground colour of wings lustrous white, a little greyish; costa of fore wings suffused with luteous and grey, the crest of scales darker, shining; inner margin of wing pale ochreous; discal fascia wedge-shaped, rather narrow, luteous, grey-margined, oblique, pointed, converging in cell 1b, with a luteous yellow stripe descending from the costa, and which has at the outside a slender, distinct, grey margin; marginal band of wing pale bright ochreous yellow, black-margined; base of hind wings pale ochreous, grey-margined; central fascia broad, widening from the inner margin towards the apex, and distinctly grey-margined on both sides from inner margin till vein 6; black marginal spots somewhat 8-shaped, their upper part

white-centred. Fringes pale grey. Veins 8—11 of fore wings stalked; 7 from a point with 8; 3—5 from a point; 4 and 5 of hind wings short-stalked; disco-cellulars very oblique.

Sikkim; Möller.

Genus Cymoriza, Guen., p. 271.* 238. Cymoriza irrectalis.

Cymoriza irrectalis, Guenée, Delt. et Pyr., p. 272, pl. 9, f. 4; S. & C., No. 4391.

One specimen represents a dark variety in which the upper side of the wings is almost entirely fuscous brown, with the white markings partly obliterated.

Darjeeling, 4th August, 1886; H. J. Elwes. Bhootan, Möller.

239. Cymoriza marginalis.

Cymoriza marginalis, Moore, Descr. Indian Lep., p. 211.

Bhootan; Möller. Sikkim; Coll. Atk.

Fam. CRAMBIDÆ, Zell.† Genus Ramila, *Moore*, P. Z. S., 1867, p. 667.

240. Ramila marginella.

Ramila marginella, Moore, P. Z. S., 1867, p. 667, pl. 33, f. 16; S. & C., No. 4660.

Sikkim, 1-4000 ft.; Möller.

241. Ramila acciusalis.

Margaronia acciusalis, Walker, Cat., 19, p. 997. Ramila acciusalis, Moore, Lep. of Ceylon, p. 389, pl. 184, f. 5.

Cirrhochrista acciusalis, id., Descr. Indian Lep., p. 227 (\$); S. & C., No. 4658.

This species was well placed in Ramila, but is no Cirrhochrista.

Sikkim; Möller.

† Zeller, 'Chilonid. et Crambid. genera et species,' 1863.

^{*} Not identical with Cymoriza, Lederer (see Snellen, Tyds. v. Ent., 23, p. 243).

[Moore's figure does not show the two bands across the wings at all.—H. J. E.]

Genus Brihaspa, Moore, P. Z. S., 1867, p. 666. 242. Brihaspa atrostigmatella.

Briaspa atrostigmatella, Moore, P. Z. S., 1867, p. 666, pl. 33, f. 13; Felder & Rogenh., Novara, ii., 2, pl. 98, f. 19; S. & C., No. 4657.

Sikkim; Möller. Darjeeling, August; H. J. Elwes.

Genus Scirpophaga, *Treitschke*, Schmett. von Europa, ix., i., p. 55; Zeller, Chil. et Cramb. gen. et spec., p. 1.

243. Scirpophaga auriflua.

Scirpophaga auriflua, Zeller, l. c., p. 1; Moore, Lepid. of Ceylon, p. 387.

A male. A second specimen differs from the other by the presence of a black discal dot on fore wings; the under side of these wings is also not suffused with grey; the other characters are the same. Perhaps a distinct species, but as it is somewhat rubbed, and the palpi are in bad condition, I abstain from giving it a name.

Sikkim; Möller.

Genus Chilo, Zincken, Zeller, Chil. et Cramb. Gen. et Species, p. 6.

244. Chilo? ambiguellus, nov. spec. (Pl. XX., fig. 4).

Two males of 37 and 43, two females of 42 and 53 mm. expanse. Though this species has, in its general aspect, some resemblance with our European Chilo phragmitellus, and looks like a stout species of that genus, yet there exist many divergencies. Firstly, with regard to the nervulation, vein 8 of hind wings is free, vein 11 of fore wings oblique, vein 7 short-stalked with veins 8—10, vein 3 comes from a point with 4 and 5, not emerging between 2 and 4, as in Chilo, and the disco-cellular of hind wings is much less oblique. The rostriform palpi have only the length of the thorax, and the female abdomen is obtuse, with a short anal tuft, as in Schænobius gigantellus 2. The inner margin of the discoidal cell of hind wings is ciliated on the upper side. Possibly the right place of the species might be near Cledcobia. Antennæ hardly as

long as the half of the costa of fore wings, setaceous, thicker in the male. Labial palpi somewhat rough-haired, fuscous, the base pale; maxillary palpi pencil-like, distinct; front obtusely protruding. Ocelli distinct, tongue wanting. Head with antennæ an thorax fuscous, paler in the female. Wings shaped as in Chilo phragmitellus, pale ochreous brown in the male, still much paler in the female; a spot at the base, two transverse rows of spots at the place of the ordinary lines, a shade behind the second, and a large rounded spot on the disco-cellular, brown; the first row consists of two or three spots and is outwardly oblique, the second is much more so in the opposite direction, somewhat flexuous and more distinct; both are meeting in cell 1b, and there confluent; shade behind the second line not reaching the apex; marginal spots black, distinct, larger in the male. Fringes paler than the wing, especially in the male. Hind wings white, in the male with a row of dark spots from the apex till vein 2. Abdomen fuscous. Under side of wings nearly white; four discal spots, a transverse row of spots on all wings at three-fourths, and marginal spots brown, but very obsolete in one of the females. Legs pale fuscous (3) or whitish (?), smooth, with long spurs as in Chilo phragmitellus.

Sikkim, Tonglo, 10,000 ft., July; id., 7000 ft.; H. J. Elwes.

Genus Diptychophora, Zeller, Stett. Ent. Zeit., 1866, p. 153.

245. Diptychophora præmaturella.

Eromene præmaturella, Meyr., Australian Microlepid., p. 198.

Diptychophora præmaturella, id., l. c., p. 217.

Eromene dilatella, id., p. 199.

Sikkim interior; Möller.

Genus Eschata, Walker, Catal., ix., p. 133. 246. Eschata argentata.

Eschata argentata, Moore, Descr. Indian Lep., Atk. p. 227.

Sikkim; Atkinson. Naga Hills, 5—7000 ft., August, 1889; W. Doherty.

247. Eschata conspurcata.

Eschata conspureata, Moore, Descr. Indian Lep., Atk., p. 227.

Sikkim; Möller.

[Genus Agastya, Moore, P. Z. S., 1881, p. 378. 248. Agastya hyblæoides.

Agastya hyblæoides, Moore, l. c., p. 379.

A single specimen, which agrees with Mr. Moore's type. I cannot tell where this curious looking insect should be placed, as Mr. Snellen had not seen it.

Sikkim, June 17th, 1887; Dudgeon.

249. Agastya flavomaculata, Moore, l. c.

This appears to differ only in smaller size, and in having a small yellow spot between the median and submedian veins. The type from Darjeeling should be in the Atkinson collection, but I could not find it.—H. J. E.]

Genus Crambus, Fabr., Zeller, Chil. et Cramb. Gen. et Spec., p. 14.

250. Crambus latellus, nov. spec.

A female, without abdomen, of 27 mm. expanse.

This species is very distinct by its broad white fore wings, sparingly marked with othreous vellow along the hind margin, and with a black central dot, situated on the base of vein 2, a somewhat unusual place. Palpi as long as the thorax, bicolorous, the basal half ochreous, the central fourth white, the tip black. Head and thorax denuded. Apex of the dull pure white broad fore wings rectangular, somewhat obtuse, as in the European hortuellus, to which group latellus belongs, the hind margin nearly straight, and the fringes with a pearly and pale golden lustre. The markings consist in the above-mentioned very distinct black dot, two faint oblique ochreous streaks on the second half of the costa, and in a slender ochreous transverse line near hind margin, which is oblique and geminated from five-sixths of costa till vein 5, thence parallel to hind margin, single and faintly undulated; apex with an ochreous spot; hind margin in cells 1 b and 2 with another, which is adorned with two black dots; marginal line ochreous. Hind wings with fringes sordid white, unmarked; marginal line ochreous. Under side of fore wings dark grey, the hind sixth yellowish white, with two marginal black dots in cell 1b and 2 as above. Neuration as in hortuellus.

Darjeeling; H. J. Elwes. Mongpo, 4000 ft.; Gammie.

251. Crambus parallelus.

Crambus parallelus, Zeller, Stett. Ent. Zeit., 1867, p. 389, pl. 2, f. 1.

Sikkim; H. J. Elwes.

252. Crambus dividellus, nov. spec.

Five specimens of 25-30 mm. expanse.

This apparently undescribed species belongs to the section C, d, v, of Zeller's genus Crambus ('Chilonid. et Crambid. genera et species,' p. 15), and is evidently allied to our European tristellus and selasellus; from both it is distinguished-1, by the bicolorous fore wings (the costal half being ochreous yellow and the inner ochreous brown); 2, by the want of the longitudinal white stripe, which is always found in selasellus, and occurs in several varieties of tristellus. Besides (and this is not the least considerable, though not the most apparent difference), the front is rounded, without the obtuse projection of selasellus and tristellus. Antennæ setaceous, nearly bare, brownish grey. Labial palpi thrice as long as the head, brownish grey. Front and vertex pale ochreous yellow. Thorax with collar and patagiæ ochreous brown. form of the fore wings is as in selasellus, the costa a little stronger, and also more regularly rounded, without depression before the more acute apex; on the contrary, the hind margin is a little more sinuate. The costal half of fore wings is of a rather pure but pale dull ochreous yellow, and the inner impure, greyish, dull ochreous brown; the limit of the two colours is, however, neither sharp nor quite straight; on the bases of the veins 3 and 4 the brown advances a little towards the costa and beyond it retreats towards the anal angle, leaving only the veins 3 and 4 brown. Besides, towards the base of the wing, the ochreous yellow of the costal half is sullied by ochreous grey-brown. In the fold a short illdefined ochreous yellow longitudinal stria is issued by the base; it does not reach the half of cell 1 b, and between its end and the inner margin of discoidal cell we perceive a small ill-defined dark grey spot; marginal line marked with minute black spots. The fringes have a silky lustre and are ochreous brown, with exception of the basal half from the apex till veins 5 or 4, which is more or less well-defined white. Hind wings white, a little glossy, dusted with grey on the apical third. Fringes white. Under side of fore wings grey, the apex and hind margin paler, first yellowish, outwardly whitish. Hind wings as above. Abdomen grey, with

whitish under side and yellowish anal brush. Legs yellowish. Nervulation as in selasellus. Vein 11 of fore wings more oblique.

Sikkim, Tonglo, 10,000 ft.; H. J. Elwes.

[This species was common in July in the grassy country along the Sundukpho range.—H J. E.]

253. Crambus aurivittatus.

Crambus aurivittatus, Moore, Descr. Atk., p. 226 (1887).

[A distinct species with broad golden band on the hind margin of the fore wing, which I have seen in the Atkinson collection.—H. J. E.]

Darjeeling; Atkinson.

[Another species or variety of this, in which the upper edge of the band is toothed, is *Crambus argyroptera*, Butler, *fide* Moore, also from Darjeeling, in the Atkinson collection.—H. J. E.]

[Note.—This paper was written by Mr. Snellen on the collections made by the late Otto Möller and myself in Sikkim, and forms the second part of the Catalogue of the Lepidoptera of Sikkim, which I commenced in 1887, and of which the first part was published in Trans. Ent.

Soc. Lond., 1888.

I can add but little to the remarks which I then made; but, owing to the untimely death of Mr. Möller, I am unable to give full particulars of the localities and seasons of the specimens in his collection, of which a set is now preserved in the Indian Museum, Calcutta. It may be said, however, that they were mostly collected by natives at low elevations in the valleys of the Great and Little Rangit rivers, near Darjeeling, and many of the species found at these low elevations have an extremely wide distribution in India and the tropics.

The species which occur only at higher elevations are not so wide-ranging as a rule, and but very few species

are as yet known to occur as high as 10,000 ft.

Mr. Snellen has had great difficuly in identifying many of Walker's and Moore's descriptions, but I have, with the kind assistance of Mr. Warren, who has recently arranged the *Pyralidæ* of the British Museum, checked

the doubtful identifications, and in some few cases

suggested corrections to Mr. Snellen.

For all which is signed with my initials I alone am responsible, and I have to offer my hearty thanks to our distinguished foreign member for the careful labour he has devoted to this work.

In order to facilitate the references I have given the number of each species in Swinhoe and Cotes' 'Catalogue of the Moths of India,' citing it as "S. & C." No. —H. J. Elwes.

EXPLANATION OF PLATES XIX. & XX.

PLATE XIX.

Figs. 1, 1a. Cydalima Elwesialis, Snellen.

2. Conchylodes paucipunctalis, Snellen.

3, 3a. Pannucha asopialis, Snellen.

4. Cledeobia angulifascia, Snellen.

5. Scoparia pulveralis, Snellen.

6, 6a. Omphisa repetitalis, Snellen.

PLATE XX.

Figs. 1, 1 a. Phalangiodes rivulalis, Snellen.

2, 2a. Pannucha vicinalis, Snellen.

3, 3a. Oryba conspicualis, Snellen.

4. Chilo ambiquellus, Snellen.

5, 5a. Crocidophora flavicilialis, Snellen.

6, 6a. Filodes sexpunctalis, Snellen.